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Wagner 'Switches Off' Cancer Virus

by Dinah Adkins

In 1980 Ohio University molecular geneticist Thomas E. Wagner uncovered information that could eventually lead to a cancer preventative. Working with a team including Dr. William Blue of the College of Osteopathic Medicine, Wagner became the first researcher to chemically switch a cancer-causing virus on and off.

The experiments were published in the *European Journal of Biochemistry*, an international scientific publication. While performed only in the laboratory and not applicable to treating human cancer victims, they provide important new information on how cancer viruses work and on how genetic information is expressed.

"Our experiments have alerted us to a biological chain of events that we may eventually be able to put into effect in cells in living animals and use to prevent certain types of tumors," Wagner explains.

Wagner's breakthrough is the most significant yet reported by one of the University's young Turks of cell biology. Moreover, according to Dr. Thomas C. Spelsberg of the Mayo Clinic, the findings represent "one of the most significant advances in molecular biology in the last decade."

Like other scientists who are pushing back the frontiers of life's mysteries, Wagner is young: now 38, he was only 36 when he undertook this research. And he is brilliant: he garnered his Princeton undergraduate degree magna cum laude at age 22 and earned his doctorate from Northwestern only two years later. From there he moved to the Cornell University Medical School faculty and the staff of Sloan-Kettering Memorial Cancer Research Center.

When Wagner left Sloan-Kettering he became one of a new breed of researchers not attached to a major research institution of the east or west coasts or employed by the National Institutes of Health.

A native Ohioan, the young scientist made a personal decision to leave New York City in 1969 when "pollution was reaching excruciating proportions. It was as if hunks of ash were falling out of the sky," he recalls. In 1970 he came to Athens as an assistant professor (his brother Eric has been on the sociology faculty since 1968), and he rose rapidly to become full professor in 1978.

Once having realized city life wasn't for him, Wagner also discovered that what he really wanted to do was combine his research with farming. An avid breeder of Finn sheep and Belgian horses, he lives with his wife, Susan '70, and three children on a 60-acre farm in a house built around 1815.

The farming was a latent passion inspired by the summers Wagner spent as a youngster on his maternal grandfather's farm near Hebron. A Welsh immigrant who had previously worked in Southeastern Ohio mines, the grandfather "could tell from a half-mile



Dr. Thomas Wagner

distance if an animal were pregnant or sick," Wagner recalls.

Supported in its early phases by the American Cancer Society, Wagner's research sheds new light on gene regulation in general and, specifically, on the regulation of viral genes. While the experiments were undertaken using a virus that causes tumors in mice, Wagner believes similar procedures will work with other virus types.

The research team under his direction found that when SV-40 virus cells had chemical groups called "acetates" attached to them they were kept in a "switched-on state." In this state they were able to take over the molecular machinery of mouse cells and create tumors.

To prove that acetates are critical to the virus's ability to cause cancer, the researchers used complicated procedures to strip them away from the SV-40 chromosomes. Then they took half of these newly switched-off or "deacetylated" chromosomes and chemically re-attached acetate groups. Both of these groups were injected into host cell cultures.

When they surveyed their results, the team found that the viruses which had lost their acetate groups didn't create tumor growth in their host cells, while both the chemically and naturally acetylated viruses did. Thus they undeniably pinpointed the effects of acetates.

In further experiments, the researchers discovered that loss of the acetate groups caused the virus chromosomes essentially to close themselves so that their genes couldn't be expressed. This information has led to new

speculations about how the physical structure of chromosomes affects the control of genetic expression.

The experiments are expected to open up many new avenues of research. In the future Wagner and Blue hope to deactivate SV-40 chromosomes within animal cells, a step that could lead to shutting down the cancer-causing virus in living creatures.

They also hope to "amplify" or modify the expression of genetic characteristics in non-viral systems through the chemical activation of specific genes. Such techniques could lead to new methods of treating genetic disorders or even to developing superior agricultural plants and livestock.

Wagner attributes his success in part to the fact that, without the pressure of associating with famous elder scientists, he's been forced to develop his own ideas "for better or worse."

Creating a unique, personal vision is essential, he says: "A unique view is the only way you can see new things. You can't look through the same glasses everybody else does."

This intellectual daring must be accompanied by a very conservative and methodical approach to proof, however. "You have to dare to dream and generate ideas that most people will shake their heads at, and you have to bring to bear careful methods of scientific experimentation."

Wagner admits that the latter is the hardest part for him: "What's most frustrating about science is that you'd like to be always flying in the sky and most of the time you have to have your feet on the ground." ☐

Inside: University's Scientists and Engineers Work on Health and Transportation Safety Problems



Second of a Two-Part Series on Research

Ohio University TODAY

Across the College Green



Dr. Frederick Hagerman, right, tests a member of the U.S. Olympic rowing team.

Sports medicine research brings Hagerman international notice

Dr. Frederick Hagerman's research has brought the scientist international recognition, involvement with every Olympics since 1968, a spate of publications and \$50,000 in support from the U.S. Olympic Committee.

For his students — about 30 of whom have worked with him in the past 13 years on physiological responses of high-performance athletes — it has meant unique training and, for some, been the basis of their master's theses or doctoral dissertations.

Hagerman's interest in sports medicine and exercise physiology was spurred by his own PhD work at Ohio State University, which pioneered what in the late 1950s was a relatively new science.

To develop a profile of elite oarsmen, Hagerman has studied 600 rowers, including 40 women. He and his research group have subjected the athletes to batteries of comprehensive physiological tests in both simulated conditions in the laboratory and in the water.

As the only scientist working with oarsmen in North America, Hagerman has been in on the development of Olympic training centers at Squaw Valley and Colorado Springs and serves as a consultant to the U.S. Olympic Committee on an ongoing basis.

"My work has brought dividends far beyond my wildest imaginings," the researcher says.

His contribution to the selection and training of Olympic athletes has also paid off for the U.S. teams. "They've been doing very well," he asserts. "Pre-Olympic regattas convinced me that we would have won several medals at the Moscow games if the boycott hadn't intervened."

Hagerman has also been gathering data on exercise as preventive medicine, using participants in the University's Adult Fitness Program, run by Tim Murray, MS '80.

"Results of this program are clear," Hagerman says. "Participants who follow the regimen prescribed show improvement in blood pressure, decrease in resting heart rate, ability to do more work and changes in blood chemistry that reveal a lessening of factors tied to heart disease."

With the conversion of Irvine Hall from dormitory to science building, Hagerman, a

member of the Department of Zoology and Microbiology, gained a complex of five specialized laboratories. These are outfitted with up-to-date equipment, including an underwater weighing tank and an electrocardiograph system he labels "the Cadillac of the industry."

Twice voted a University Professor, Hagerman is a disciplined practitioner of what he teaches, running between 40 and 80 miles each week and competing in marathons throughout the year.

Faculty authors cover mathematics to TV criticism

Recent books by Ohio University faculty cover everything from new approaches to teaching college-level math to a close look at television criticism.

Associate Professor of Mathematics Ellery Golos is the author of *Patterns in Mathematics*, a textbook geared toward non-math and non-science students. It was published by Prindle, Weber and Schmidt.

Assistant Professor of Radio-Television Hal Himmelstein's study of the history and current status of television and video art criticism, *On the Small Screen*, was brought out by Praeger in March. It includes interviews with prominent critics and analyses of trends in the field.

Here *The Country Lies: Nationalism and the Arts in Twentieth Century America*, is Professor of History Charles Alexander's latest book. Published by the Indiana University Press, the work focuses on the interplay between critical thought and creative activity in the United States from 1900-1945.

Dr. William Miller, professor of radio-television, is the author of *Screenwriting for Narrative Film and Television*. The culmination of six years of work, the text includes examples from current and classic film and television scripts.

Essays on the changing society of the Gilded Age are included in *The Rhetoric of Protest and Reform, 1878 to 1898*, edited by Dr. Paul Boase, professor emeritus of interpersonal communication. The book was published by the Ohio University Press under the auspices of the Speech Communication Association of America.

University offers Rubbermaid employees a job-help program

The University's public service arm reached to Chillicothe in March to help released employees of the Rubbermaid Corp. update their job-hunting skills and explore the job market.

A two-week program was developed with Rubbermaid and was the first such cooperative venture between a university and industry. The housewares manufacturer closed its Chillicothe plant in two-stages in February and March, phasing out 350 workers.

Developed by the University's Regional Higher Education Division, the program packaged "how-to" group sessions with individual counseling plus time with a mini-computer to work on self-assessment and career information.

Using one computer program, workers were able to identify their own combination of values, interests, abilities and plans, then match these with an occupation and develop a strategy for getting a job.

Designed to help students make career decisions, the program is known as SIGI (System of Interactive Guidance and Information) and is being field-tested at Ohio University and five other schools across the country.

A second computer program used by the Rubbermaid employees, the Ohio Career Information System, lists 8,000 Ohio jobs and their locations, indicates the training and experience needed, likely salaries, where preparatory job training can be obtained and the cost.

To top off the job-help program, which was conducted on the Chillicothe campus, the University radio station, WOUB, broadcast profiles of the participants throughout 28 Southeastern Ohio counties.

For at least one participant, the combination of job assistance worked. He called program director Dr. James Bryant to ask how to best hold off on two job offers while he checked out a third.

Harsha papers donated to Alden Library

Researchers interested in the complex workings of Congress in the past 20 years and in how the Senate and the local Osage interest, have been given primary source material to study, thanks to a gift to Alden Library from former U.S. Congressman William H. Harsha (R-Portsmouth).

Just retired, Harsha has donated 20 years of correspondence, office files, speeches and drafts of legislation. Of special interest will be his extensive local project files covering the 1960s.

Ranking minority member of the House Public Works and Transportation Committee, Harsha was a prime mover in the interstate highway construction program of the 1960s and early '70s. In more recent years, he drafted the legislation establishing a uniform national 55-mile-per hour speed limit.

The William H. Harsha Papers will be housed in the Department of Archives and Special Collections.

WBNS-TV gives color processing equipment

A gift of processing equipment to the University's Film Department from WBNS-Channel 10 in Columbus is allowing students to process color as well as black and white film.

The station's gift was arranged by Priscilla D'Angelo, a University trustee and wife of Gene D'Angelo, WBNS-TV's president and general manager.

Replacement value of the 16 mm color reversal processor exceeds \$40,000, according to Film Department Chairman David Prince. Prince said the gift will support the department's three-year master of fine arts and one-year master of arts programs.

Readers, borrowers, browsers increase at Alden Library

Talk about traffic! Last year, 244,444 books and other materials were checked out of Alden Library by faculty, students and non-University folk. By far the largest number (189,995) of checkout cards were signed by students.

The leisure reading collection accounted for another 11,551 sign outs.

The users not only signed out material, they asked questions — 110,304 of them — used 127,938 books in the reserve collections and consulted more than 350,000 items in the regular collection.

In all, library statistics show 1,158,644 users in 1980, an 11.4 percent increase over 1979.

Not completely satisfied with the local resources, they had Interlibrary Loan borrow 6,642 additional items for them.

Through the year, Alden staff members conducted tours for more than 5,700 individuals.

Research team reports air pollution's effect on fertility

A University husband-wife team of researchers has reported the first statistically significant evidence that air pollution has adverse effects on fertility. The effects are cumulative and increase as women age.

The study by Rajindar and Manjulika Koshal of the College of Business Administration and James Bradfield of Hamilton College was published in *Environment International*.

As a result of their findings, the professors warn that the current tendency to delay having children to later and later ages may mean fewer children are born, excluding other factors, because air pollution gradually inhibits reproductive capacity.

While the impact of air pollution is statistically significant, according to the Koshals, it is quite low in comparison to other factors. Taking these into consideration, pollution was found to have only a one to two percent effect on fertility.

Research focuses on literacy from historical perspective

Last summer, Associate Professor of Curriculum and Instruction Edward Stevens outlined some of his findings about illiterates and 19th century U.S. courts at a conference in Washington, D.C.

Illiterates were not considered "marginal people on the fringe of society in 19th century America," Stevens reported. Instead, the legitimacy of the mark (e.g., an X signed by an individual) was consistently upheld, and illiterates participated in economic, political and civic activities, serving as jury members and as witnesses to contracts and agreements.

"Literacy was not seen as the measure of intelligence or competence," Stevens says. "Illiterates were not presumed to be less bright than literates, and illiteracy per se was not the measure of juror competence. In fact, there was some thought that illiterates might have superior recall skills, since they had to rely on memory rather than on written accounts."

But by the end of the century, modern contract laws was emerging, accompanied by "a subtle shift to placing greater responsibility on the illiterate to look out for himself," Stevens says. "Prior to this, the burden had been on the literate person to convey the intent of a contract to the illiterate party."

This year, Stevens received a \$44,807 grant from the National Institute for Education for a two-year project, "Literacy, Law and Social Order," that is focusing on

the changing meaning of literacy in the United States from 1700 to the present.

The work is part of a lot of activity concentrated on looking at literacy from an historical viewpoint, according to the professor: "Government agencies that make educational and social policy are recognizing that it's difficult to interpret current problems with literacy without some historical context."

Hors d'oeuvres humor course is serious business

Before he came to Ohio University, Melvin Helitzer was a New York ad man and a humor writer for the likes of Shari Lewis and Ernie Kovaks. Now he's teaching a course on humor writing for fun and profit that has drawn attention from local media and from NBC and *Esquire* magazine.

Among the professor's requirements? Half a student's grade is based on his stand-up comic routine during "The Comedy Class Live," a nightclub act played at Baker Center.

Open to the community, the class is pitched to people who want to inject "quality humor" in business and political speeches, advertising, public relations, greeting cards, posters, magazine and newspaper articles and columns. Helitzer describes it as an "hors d'oeuvre plate — you get a taste."

The first hour of the three-hour night course is spent on humor techniques and philosophy. Students learn why people laugh and the distinctions between irony and satire and wit and humor. The second hour is devoted to humor genres and, during the third, students read or perform their homework.

Helitzer teaches his students that comedy is an important defensive technique: "You can't hate somebody you laugh with. They become more human." He cites a recent Congressional sparring session involving Secretary of Defense Casper Weinberger in which proposals to increase defense spending were ridiculed as evidence of a "Rule Britannia" mentality. "That was a pretty good song, you know," Weinberger retorted, breaking up the room and gaining more time to answer the question.

Like professional comedy writers, Helitzer's class finds that being funny is serious business. But "The Comedy Class Live" is strictly for laughs: subjects of the collegiate humor are dormitory life, studies, professors and, of course, sex. Freshman Steve Spiegel of Cincinnati won his student audience's respect in March for his suavely delivered monologue on his attempts to seduce a girlfriend from out of town:

"The first thing she wanted to do was see Athens, so we compromised," Spiegel said. "I opened the curtains."

Independent Study attracts students from teens to nineties

Now in its 57th year, the University's Independent Study Program has 5,000 enrolled and ranks as the fourth largest in the United States — behind Indiana, Brigham Young and Minnesota.

"We have students from teen-agers to a 92-year-old woman in Kansas enrolled in the telecourse on the Shakespeare plays," Director Richard Moffitt says.

Sixty percent of the faculty are either associate or full professors, he adds, and the quality of their effort is shown by the five national awards given courses developed for the program in the last few years.

All four Independent Study credit options — correspondence courses, course credit by examination, telecourses and independent projects — have been packaged into the External Student Program, which leads to an Ohio University degree. About 400 students are now involved, Moffitt says.

"They're an interesting group. Most are between 28 and 38 years old, have had two years of college and come bearing between five and seven different transcripts."



Hundreds of alumni and students (as well as President Ping) dialed 12,000 of the University's graduates during the April-May Konneker Alumni Center Challenge Phonathon, the largest project ever attempted by the Development Office. Bob Axline and Glen Corlett of the National Alumni Board are heading the \$200,000 Challenge to raise funds to match money pledged by Will and Ann Konneker. Money raised will go to restore and furnish the University's new alumni home and to create an endowment for its upkeep.

Alumni go west — and south

Not about to be left out of a national trend, Ohio University alumni are packing their diplomas and sunglasses and heading south and west, according to Alumni Director Barry Adams.

Here is a sampling of some of the facts Adams has gathered:

—Excluding those with fewer than 400 alumni, states with greatest increases in Ohio University grads and their totals are North Carolina, 31 percent (547); Texas, 28 percent (1,109); Florida, 25 percent (2,478); Arizona, 24 percent (559); Colorado, 23 percent (603); Georgia, 21 percent (620); California, 16 percent (2,902).

—Massachusetts, bucking the trend, had a significant gain, up 31 percent (781) from two years ago.

Illinois saw the greatest gain in the Midwest, with a 12 percent increase (1,527).

—Ohio (56,213), Pennsylvania (2,989), and New Jersey (1,866) all had increases of 9 percent, while Michigan had 8 percent (1,665) and New York, 7 percent (3,553).

—In Ohio, Athens County had the largest increase, 14 percent (4,766). Cuyahoga County, traditionally the county with the largest number of OU grads, had only a 3 percent growth rate (8,298).

—Franklin County (Columbus) had an 11 percent growth rate (5,358). Adams predicts that if this continues, Franklin will replace Cuyahoga as home of the largest number of alumni by 1987.

—Hamilton County (Cincinnati) also experienced an 11 percent increase in University alumni (2,009), and Montgomery County (Dayton) showed a 9 percent growth (2,092).

—In international alumni ranks, the increase was 34 percent (2,098).

—Total living alumni, 90,816.

Bobcat Athletics —

A View from the Press

The Cinderella stories of the Mid-American Conference this year, the Ohio University football and basketball teams, defied all the odds. Both Bobcat teams boasted records far better than had been expected.

Picked to finish eighth in the conference, second year football coach Brian Burke produced his second winning season (6-5). Basketball's rookie mentor, Danny Nee, pulled perhaps the biggest coup of the year in the MAC when his Cats qualified for the conference tournament after being picked to finish last. Nee's squad was one of the youngest in the conference with only four lettermen and one starter returning.

The performances of the two teams generated a wave of plaudits from the press. Columbus *Dispatch* sports writer Tim May saw the year as a pivotal one and chose to document the last decade in the University's varsity program with a five-part series.

May credited Athletic Director Harold McElhaney with strengthening the entire athletic program, but asked some tough questions about the future, for Ohio University and all Division I-A schools.

Excerpts from May's series appear below.

Realistic View of Football

... in 1980, "we really expected 5-6 or 4-7," said Athletic Director Harold McElhaney. "And what does Brian do? Six-five. Yes, I think the football program is in very good hands with Brian Burke. . . ."

At Ohio University, Burke said, "The top of the line for us right now is the Mid-American Conference championship. Of course, that means we'll get to play in a Division I-A bowl game."

The bowl he is talking about is the California Bowl. Starting with the 1981 season, the champions of the MAC and the Pacific Coast Athletic Association will tangle annually in Fresno, Calif. It's not exactly the Rose Bowl, but it will add prestige.

What is incredible is, despite the apparently disparate programs, teams in the MAC have the same standing—Division I-A—as those in the Big Ten or Big Eight.

Actually, Ohio University's football limitations are more in line with Division I-AA schools, which (like MAC schools) also are limited to 75 scholarships.

So why the pretense of I-A? McElhaney is candid.

"Prestige," he said. "One-A, in the eyes of the public, is where it's at."

... "What two teams played for the I-AA championships last year? . . . I can't name them either."

Basketball Holds Key

McElhaney, who hired Nee last year . . . , wants the basketball program turned around.

What with Mid-American Conference restrictions on scholarships, it's impossible

for the Bobcats to become a superpower in football. But in basketball, teams are allowed 15 scholarships.

Nee, who learned many of the tricks of his trade by assisting one of the best, Notre Dame's Digger Phelps, bases his entire approach on the student-athlete.

"We have to get kids here for four years, to get them a degree and educate them to the point where they start recruiting for us," Nee said. "You start the continuity by building the program on solid ground. A freshman comes in and four years later he graduates. Once that momentum starts, it'll help you."

"I feel we laid a solid foundation for our program this season. We will continue to progress."

McElhaney does not mind spending a little extra (on recruiting) because "basketball is a sport we could possibly compete in equally with anyone else in the country. . . . And it's one sport where we can break even, or even make some money."

Minor Sports and Women's Teams

... And though football and basketball have dominated much of his effort, McElhaney has worked to strengthen the minor (non-revenue) sports also.

"When I came in here, the program was in a kind of down overall situation," said McElhaney. "Golf and wrestling were going pretty well but everything else was sort of down. We're working to correct that."

Even with success, though, it is becoming increasingly difficult for universities . . . to support their minor sports. That was apparent at the recent NCAA convention.

"A proposal was brought up to drop the required number of varsity sports (for Division I-A football eligibility) from 12 to eight," said McElhaney. "It failed, but not by much. I think it's apparent everyone is suffering money problems."

Then there are women's sports.

There are eight varsity women's teams at Ohio University. Like almost everywhere else, they are having trouble attracting even minimal fan support.

"It's a sociological thing," said McElhaney. "It's going to take a little time. . . . But it probably hasn't gotten its fair share of promotion."

A Look at the Future

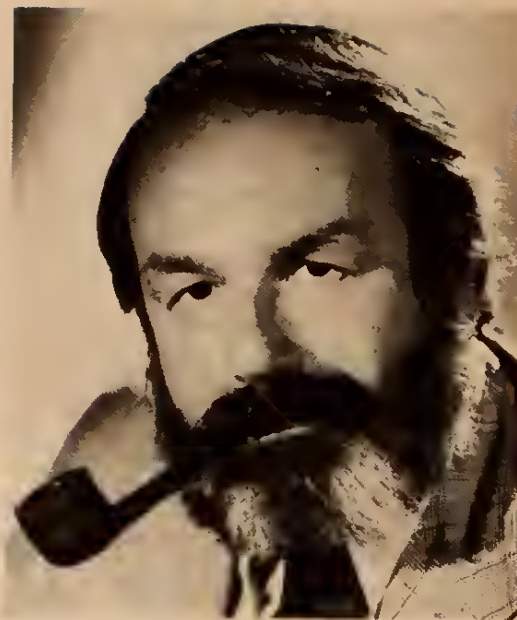
Without a doubt, some sports will be lost at institutions like Ohio University. Sports for sports' sake will no longer be plausible, not when the library is asking for more money just to keep the lights lit.

McElhaney has added strength where it counts, though. Brian Burke has exceeded all expectations as football coach. Danny Nee's coup of making the MAC playoffs in basketball this season was as big a story as five teams tying for the regular-season title.

As a result, interest in and revenue from those sports should begin to pick up and help offset the coming hard times.

Though they are the big drains on the budget, they are also the only revenue producers. So football and basketball will survive.

But of the other sports? Well, as McElhaney put it: "Nobody said this job was going to be easy."



Van Gordon Sauter

CBS Sports Gets News Look

CBS Sports President Van Gordon Sauter '57 made news throughout the spring as he revamped the network's sports coverage.

The wire services took note last summer when Sauter was named sports chief. His background at newspapers and in CBS News and management posts had never touched sports, but his administrative successes for the network had included assignments as Paris bureau chief, vice president of standards and practices (the head censor) and general manager of the Los Angeles CBS television station, KNXT.

A United Feature Syndicate story referred to his CBS career as "turning up in unlikely executive positions and being successful."

Associated Press television writer Peter Boyer called him "something daring and new: a network sports chief who is steeped in news tradition. He's talking about creating an investigative sports journalism team for his network."

Boyer wrote: "CBS Sports, old and weary and lagging far behind its competitors in sports coverage, . . . clearly needed a change." He noted it was the only network without regular coverage of college sports and without baseball, and he described its NFL coverage as lacking "innovation and spark."

The AP writer credited CBS with not "trying for the quick fix" but for looking for "an architect who could redesign the entire sports division."

Sauter, 45, has been living up to that billing. He announced early this year that CBS would revise its weekend programming and drop its "CBS Sports Spectacular." In March he commented before the National Television Academy: "We are . . . getting out of the trash sports business as quickly as we can work off contracts."

In April, he introduced a weekend sports anthology series hosted by Brent Musberger to challenge ABC's "Wide World of Sports" and NBC's "SportsWorld."

There also was Sauter's agreement with the NCAA to bring the college basketball championship tournament to CBS for three years, beginning in 1982. And he was reported as saying CBS "is very anxious to get into baseball," although that field is tied to ABC and NBC for the next two years.

Boyer ended his report as follows:

"Sauter walked into CBS Sports in August and has already accomplished more than his predecessors did in a decade. Axing trash sports alone was enough to satisfy some people. No wonder Sauter is being mentioned as the next head of CBS News."

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Health: Tumor Therapy

Physicists Measure Body Tissue's Response to Fast Neutron Therapy

"Therapy . . . that can burn away tumors with a dazzle of nuclear particles . . ." was the way a writer in the *New York Times* described the neutron beam radiotherapy that is one of the research interests of physics professors Roger Finlay and Jack Rapaport.

For the past two years they have been working to provide the basic nuclear physics data needed to make progress in precision neutron dosimetry — methods of measuring effective dosages of this relatively new cancer therapy.

High intensity neutron therapy has been in experimental use for only the past 10 years, according to Finlay. Today, about a half dozen treatment centers exist in Europe, and another handful are in operation or under way in the United States.

In Ohio, NASA's Lewis Research Center in Cleveland treats about 100 patients annually in conjunction with the Cleveland Clinic.

"Large-scale trials of this therapy are just in their infancy," Finlay says, pointing out that while about 400,000 cancer patients get conventional x-ray and cobalt therapy each year, less than one percent of that number get fast neutron therapy.

This work, which opened up a new area for the active group of researchers at the Edwards Accelerator Laboratory, has been supported by \$118,000 from the National Cancer Institute. A renewal grant of \$250,000 has been favorably reviewed and is awaiting final action.

Since the 1960s, the Ohio University physics researchers have developed instruments and techniques for studying the properties of nuclei, winning national and international recognition for their efforts. "We've staked out a region of neutron energy research — the 20-30 million volt range — that no one else can handle," Finlay says. "This specific area of strength means that we can make unique research contributions."

Given their capabilities and success record, the physicists were ready to try their hand on a medical problem when it came to their attention. They were excited about neutron beam therapy because it looked as if in some cases it would have a major advantage over traditional radiation: the fact that it does less damage to surrounding healthy tissue.

Ohio University is not about to become a clinical center for testing neutron radiotherapy on cancer patients, however, according to Finlay. "Our assignment from NCI was to go measure interactions between this kind of radiation and the chemical elements that make up the bulk of malignant tissue, the carbon, oxygen and nitrogen. A solid base of information is needed to help clinicians devise effective dosages."

The first step was building a measuring device for use in conjunction with the Tandem Van DeGraaf Accelerator's capacity to generate high intensities of neutrons to bombard target materials.

This measuring instrument, a magnetic quadrupole triplet resonance spectrometer, was designed by Finlay, Rapaport and Steven Grimes. Then a visiting physicist from the Lawrence Livermore Laboratory, Grimes joined the University's physics faculty this quarter. The spectrometer was built by Honors Tutorial College student Jerome Weber as his senior thesis project.

"We built the instrument and we've got some preliminary results that are getting attention," Finlay reports. "Last fall, we gave two presentations at the 7th Symposium on Microdosimetry held at Oxford, England,

one of them in collaboration with Joseph McDonald, who was then at the Sloan Kettering Memorial Cancer Research Center."

In late January, three visiting scientists — McDonald, now with the Department of Radiology Oncology at UCLA; John Dicello of the Los Alamos Meson Physics Facility; and John Lian of Sloan Kettering — were on campus to use special features of the accelerator laboratory to study interaction of radiation with elements making up biological tissue.

Working with Finlay, Rapaport and research associates Gerhard Randers-Pehrson and Vivek Kulkarni, the team succeeded in extending experimental results obtained by McDonald on an earlier visit to campus.

The collaborative effort paid off in a number of important refinements, according to Finlay. The first was an on-line computer program written by Dr. Randers-Pehrson which allowed the team to observe the data in final form instantaneously.

The second breakthrough came in the area of precision timing with microdosimeters. "A novel dosimeter designed by Dicello was used with the pulsed beam features of the accelerator to provide a new dimension in the type of information which can be obtained in these studies," Finlay says.

These developments will be included in a paper being prepared for the 29th Annual Meeting of the Radiation Research Society scheduled for late spring.

Several more years of work, including comparing data from various treatment centers, will be needed to develop all the complex calculations needed to gauge accurately the response of body tissue to varied doses of neutron radiation, according to Finlay.

Meanwhile, the physics researchers and their PhD students will continue providing information that will help physicians and radiologists better determine dosage levels for patients now receiving neutron therapy.



Physicists Roger Finlay, left, and Jacobo Rapaport have their portrait taken with the "beam swinger" magnet installed last fall in the Edwards Accelerator Laboratory.

Clinical Physicist Plans Radiation Therapy for Cancer Patients

Charles Nelson, MS '69, PhD '73, is not presently working with the fast neutron therapy that is engaging the interest of Roger Finlay and Jack Rapaport but with the conventional radiation treatment that hundreds of thousands of cancer patients receive yearly.

Dr. Nelson has been at Duke University since 1975. Since 1979, Nelson has been an assistant professor in the Department of Radiology's Radiation Physics Division at the Duke University Medical Center as well as an adjunct assistant professor of physics in the Department of Physics.

"At the medical center, we calibrate the therapy machines, determine patient dose and do radiation therapy treatment planning," Nelson says of his work as a clinical physicist. He has worked in fast neutron therapy, however, since after he left Athens he went to the University of Chicago, which was in the process of adapting a cyclotron for neutron therapy purposes.

"Always interested in physics," Nelson had planned to teach, but changed his mind after earning his bachelor's degree and came to Ohio University for his advanced degrees in physics.

Here he worked with Distinguished Professor Raymond Lane on neutron scattering studies "from a basic physics viewpoint" and discovered the appeal of research.

"It's exciting in that different challenges come up every day. It's a bit like reading a mystery and trying to figure out who 'did it.'"

"There are frustrations when you don't have the time you need or the results don't come as fast as you expected. And there's hard work and checking again and again, but I'm in it and really blind to any drawbacks that might exist," he says.

He is presently part of two research efforts at Duke that are funded by more than \$550,000. One project, "Wide-Range Dosimeters Using Low-Z Scintillators," is receiving NIH funding of \$54,000. Another, "Environmental Effects on Carbon Exchange and Allocation in Plants as Measured by Carbon-11 Tracer Kinetics," is supported by \$500,000 from the National Science Foundation.

He is also in charge of planning for the acquisition of a medical cyclotron to be installed for use in isotope production for medical applications at Duke. As part of this effort, he recently visited Paris and plans to visit hospitals in Sweden and the United States to inspect medical cyclotron installations. In addition, Nelson teaches in the physics department as well as the medical school.



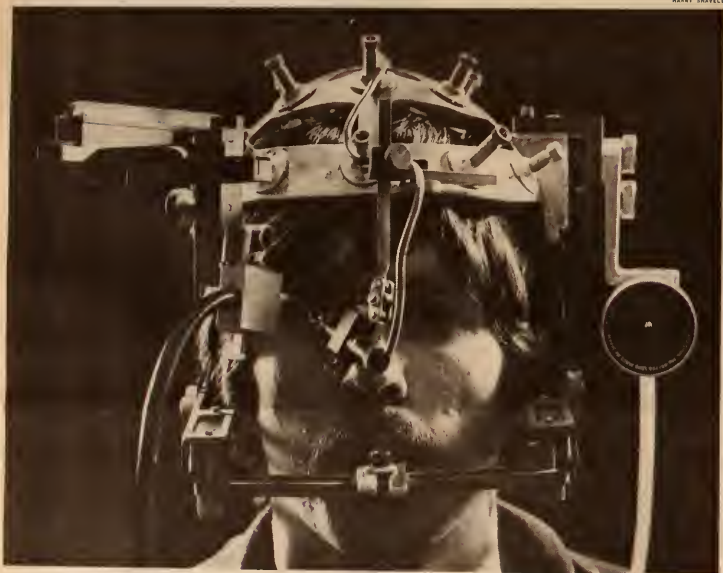
Dr. Charles Nelson

by Nancy Roe

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Transportation Safety Problems: Campus Answers

Driver Reactions Along Rural Highways Tested



Walter Hobocienski, MS '77, with test equipment used in driver reaction study.

The test subject looks like a misplaced extraterrestrial being as he swings a bright blue Volkswagen along Southeastern Ohio's two-lane highways.

But beneath the tangle of extruding wires, a television camera and an eye scanner, is the head of a driver with 20-20 vision and his own teeth.

Within the electronically outfitted test car, an unseen light beam bounces off the driver's right eye recording on videotape all eye fixations within the driving scene ahead. Also fed onto the tape throughout an hour's test drive are the subject's steering reversals and accelerations.

Other electronic sensors in the car feed in records of speed, time, braking action and lateral position in the traffic lane. Tests are run day and night.

When the data are collected and analyzed, the report will show what along rural-state highways caught the driver's attention and what his reaction was.

This test, repeated with 48 drivers, is the experimental phase of a \$135,000 project funded by the Ohio Department of Transportation and the Federal Highway Administration. Through it, Drs. Helmut Zwahlen

and Robert Williams are trying to identify factors that will improve traffic engineering practices and driving safety.

The research is the largest such study yet undertaken in this country and the grants acknowledge prior driver studies by Zwahlen with the test equipment he has assembled from component parts and a large dose of ingenuity.

Subjects for the test are a cross section of novice and experienced drivers of various ages. Two essential requirements are that the driver has his own teeth, since the eye movement equipment is steadied by a mouthpiece, and uncorrected 20-20 vision. Even contact lenses are unacceptable because they could distort the eye-scanning beam.

These tests of human reaction to existing rural highways are expected to lead to improvements on existing routes and safer traffic engineering for highways yet to be designed.

The project is put in context by Williams as he explains the work of industrial and systems engineers like himself and Zwahlen.

"We want to design systems, in this case a highway, that are friendly to a human being," Williams says.

"To be really efficient and safe, we must get something the human can deal with, a system that will take into account reaction time, how much stress a person can manage and the length of his arms.

"Our question always is: What are the human factors?"

Electronic Gadgets Test Efficiency of Traffic Signals

Every driver knows the sinking feeling that comes when the factory ahead spills 5,000 homeward-bound cars onto the highway.

If traffic sensing and responsive signals are working correctly, this rush-hour congestion dissipates within a short time. If not, motorist frustration runs high.

There's help on the way. Electronic testing equipment being developed by James Gilfert will quickly identify malfunctioning traffic detectors and make prompt repair possible.

An electrical engineer, Gilfert is working on a prototype instrument to test traffic-sensing loop detectors, which are installed in the pavement at intersections.

When working correctly the detectors direct traffic signals to shorten or lengthen the green light cycle in accordance with demand.

"The problem with these embedded loops is their reliability. They're susceptible to water seepage, cracking under ice, or even a lightning strike half-a-mile away," Gilfert explains.

If the detector fails, the signal reverts to a constant preset pattern. During rush hours, traffic piles up "and you've got a lot of cursing motorists."

"The gadget we're building will plug into the system and send sensing signals to check the loop and the associated electronics in the control box. It will save physical checks within the box and time-consuming observation of signal sequencing," Gilfert explains.

Development of the device is funded by the Ohio Department of Transportation, which has awarded Gilfert grants totaling \$80,000 in the last three years. Earlier projects produced model hardware for automated data collection.

"The basic ODOT assignment is to economize on time and probability of error. The side benefit is that we have fun doing it," Gilfert says.

Applying microprocessor technology to traffic surveys, Gilfert developed an instrument that replaces an observer with "a ticket counter gizmo" and manual transfer of averaged data.

His survey device records passenger and truck traffic and loads data into a solid-state memory every five minutes. The match-box size unit holds 10 hours of traffic records and can be transferred directly into a computer in 100 seconds.

Another device developed with former student Sam Bensonschaver, BSEE '78, MSEE '80, is used in determining road roughness. Action of a ride meter, which gauges the bounce between a car's frame and rear axle, previously was encoded by pulses on a strip



Dr. James Gilfert

by Peggy Black

chart that would run 500 feet a day and take a week to translate.

Using the Gilfert-Bensonhaver device, comparable amounts of data are recorded in a small solid-state data storage unit that can be read into a computer in a minute and a half.

Gilfert also collaborated with Donald Scheck of the industrial and systems engineering faculty in developing traffic signal diagnostic equipment to spot actual or impending failures in lights. The "exerciser" can put a traffic signal through its paces to spot weaknesses before it malfunctions.

Scheck, who has had ODOT grants totaling \$137,000 in the last three years, is now working on a recording device that will fit into the intersection control box to identify the nature of traffic light malfunctions and spot weaknesses in design.

In an earlier ODOT project, Scheck developed a statistically based risk factor for railroad-highway crossings that correlates conditions at intersections to accident frequency. The study involved a survey of road grade and curve in the approach to an intersection as well as distractive factors such as neon signs that compete with a flashing crossing signal.

Avionics Research Ranges from Site Engineering to Aircraft Equipment

With a county airport and no air service, Athens seems an unlikely location for a major avionics engineering center. Yet it is the takeoff point for research projects scattered from airports in the Rockies to snow-covered Minnesota runways and the center's test site in flat, southern Florida.

Research contracts from the Defense Department, the Federal Aviation Administration and the National Aeronautics and Space Administration flow to the center. It also garners contracts from the aviation industry, currently from Foster Air Data of Ohio and Watt Prototype Company of Virginia.

Propelling this activity is Richard McFarland, who manages to juggle 12 to 15 research projects at a time and keep the center's \$900,000 worth of contracts moving ahead. His 20 years of nurturing the center have brought in more than \$6 million in outside funding.

Over the years the center's staff has grown to 32, including teaching engineers, technicians and administrators.

Electrical engineering students with an interest in avionics vie for 18 internships, 10 at the undergraduate level. Although the interns are paid, the greatest lure is the experience they receive. All get practical involvement in research that puts them a year and a half ahead in the job world, according to McFarland.

"We have two products at the center," he says. "One is the well-trained graduate prepared for a professional job; the other is technical reports."

Government contracts always require detailed documentation of research and its findings, McFarland explains. A recent hefty report he authored covered about three years and \$1 million worth of technical work.

The center's reports document some impressive advances in aviation equipment for both pilots and airports. Often accompanying the reports is prototype equipment such as a miniaturization of an Omega receiver that will make the navigational aid as available to the flying public as to airlines.

The longest running project has involved continuing improvements on the ILS, the instrument landing system for getting aircraft safely down to the runway. It has attracted



Dr. Richard McFarland

McFarland's interest since his graduate days, and he has obtained continuous contracts to refine the system. As its capabilities grew, McFarland and his staff have taken the system to airports long considered impractical for ILS.

McFarland explains that in the early years of ILS, reliability was often achieved by extensive contouring of surrounding land, relocation of power lines or even mowing high grass. With today's refinements, proper placement and adjustment of the electronic ground equipment will provide reliable signals.

"If you apply some very precise engineering, you can get ILS to play at most sites at a reasonable cost," McFarland says.

The reliability of the ILS is reflected in its safety record. "There has never been an accident caused by a faulty ILS signal," says the engineer. "We have clear evidence that it is the absence of ILS facilities that is causing accidents." He cites the 1970 crash that killed the Marshall University football team, as well as more recent ones.

Use of ILS is growing rapidly, McFarland reports. FAA statistics show a 13 percent increase in new systems in the past 18 months. Currently 743 systems are operating at 527 airports and the FAA predicts 1,000 will be in use in 1982.

Better site engineering has also been matched by advancements in aircraft equipment, McFarland says. Microprocessor technology has revolutionized the cost and weight of on-board equipment.

"In the past, most small aircraft were without computational capabilities and we had to compromise on the data we received. Today, microprocessors the size of a book can make all the coordinate transformations you want," McFarland explains.

"I'm looking at things in a completely different way than I did five years ago."

New electronic technology has sent McFarland back to reevaluate problems he worked on 10 years ago. "Some recommendations I made to the FAA at that time are now inappropriate and I want to change them."

The revolution in electronics makes McFarland question the use of the word "research," at least as applied to engineering. "The term implies going back and we seldom care how some guy solved a problem five years ago. We're always working ahead," he says.

Despite the growth of the avionics center, McFarland has shunned becoming an administrator, preferring involvement in research activity. As the only Category II instrument-qualified engineer in the United States, he pilots the University's venerable DC-3s—outfitted as flying laboratories—and his own fully instrumented Bonanza A36.

"The fun is in solving the problems, including all the testing and analysis of the results," he says.

Alumnus Guides Corporate Aircraft Training Programs

David Horwitz, MSEE '70, came to Ohio University because of its reputation in avionics after three years of working in the field.

One of the early interns at the Avionics Engineering Center, Horwitz assisted Dick McFarland and G. V. S. Raju on federally-sponsored research in navigation systems design. "We got some valuable reports out on low-level navigation problems," he recalls.

His master's degree led him to an avionics job with Beech Aircraft Corp., where a succession of instructional and supervisory jobs moved him into becoming assistant manager for instructional standards.

His province is high-altitude aircraft sold at the factory, such as the million dollar plus Beechcraft Super King Air. Purchasers of such prop jets get courses on flying and maintaining the aircraft that go well beyond the "fly and fix" classes given small aircraft buyers by dealers.

At corporate headquarters in Wichita, Horwitz designs and develops training courses for pilots and maintenance crews and is responsible for the quality of programs provided by 25 air and ground instructors.

It isn't a desk job. An air transport pilot with multi-engine and instrument instructor ratings, he flies with the instructors to ensure their understanding of the aircraft's systems as well as their teaching techniques. To check his own standards, he flies with pilots of newly purchased planes to hear their questions and learn their needs.

Helping pilots and mechanical crews make the transition to high-altitude aircraft requires flexible approaches depending on their entry level of experience. For some it's "a very substantial step," Horwitz explains.

"The 1981 professional pilot is really a systems engineer. Today the use of fundamental flying skills is reduced. More important is a technical understanding of the electronic and mechanical systems—avionics, airframe, engine.

"It is getting to the point where it would be as easy to teach a systems engineer to fly as to instruct pilots in all the systems involved," he says, only half joking.

Horwitz's responsibilities also take him into the development of projects that support instruction. Most recently he developed a fuel conservation computer program that helps pilots of the Super King Air save up to 10 percent on fuel.

Available in a hand-held flight planning calculator, the system helps pilots quickly calculate weight and balance distribution, climb/cruise/descent performance, navigation, true air speed and best-economy and best-time en route profiles.

"We're in a competitive business and we want our customers sure, safe and satisfied," Horwitz says. "Today, saving 6,000 gallons of fuel is very satisfying!"



David Horwitz

Health: Basic Research on Campus

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In zoology and microbiology, osteopathic medicine, chemistry — Scientists Contribute to Understanding the Living Cell

The University scientists engaged in basic research with a bearing on human health were at most teenagers when the new biology came on the scene.

It was only 27 years ago that James Watson and Francis Crick unlocked the structure of DNA — deoxyribonucleic acid — the carrier of the genetic code. It was only 19 years ago that a scientist succeeded in isolating a gene and identifying its unique function.

These discoveries, coupled with special techniques from chemistry and physics and developments coming from the post-World

War II electronic age, led to the charting of the territory where these Ohio University scientists have spent much of their adult lives.

That territory is the living cell, which in all its astonishing complexity provides abundant material for the thousands of researchers worldwide who are now contributing bit by bit to our understanding of what is an extremely busy, complex chemical world.

In an article on the new biology in the *National Geographic*, Rick Gore outlined the scale of that world, noting that each of us is made up of at least 100 trillion cells, with approximately 100 million in one square inch of our skin.

Within the cell itself more staggering figures are called for, with some 200 trillion groups of molecules and — in the nucleus itself — 46 chromosomes made up of long molecules of DNA and proteins with perhaps 100,000 genes fixed like beads in the strands.

Right now, in laboratories in Irvine, Clipping and Grosvenor, University researchers are at work trying to unravel some of the questions about how the busy cell world functions. Their answers could lead to insights into muscle and hypertensive diseases, cancer tumors, muscle regeneration and immunology systems and to an increase in the world's food supply.

Biochemist Conducts Basic Muscular Dystrophy Research

Jack Blazyk is a young biochemist with no illusions about how much yet remains to be discovered about the workings of the cellular chemical factory.

"When Peter Johnson and I go on television shows to help raise Muscular Dystrophy Association funds, we try to emphasize that major breakthroughs in discovering the molecular causes of muscular dystrophy are still a long way off. In fact, we don't even completely understand how normal cells work," he explains.

With MDA support totaling \$55,000, Blazyk has used rabbit skeletal muscle cells to study the membranes of intracellular structures involved in controlling the vital calcium concentration in the cell.

"It's known that in certain types of dystrophic muscle something is wrong in the mechanism controlling calcium concentration," the researcher points out. "After first determining how this mechanism works in normal cells, we will soon begin looking at dystrophic ones."

Trained at Brown University in the structure of mitochondrial membranes, Blazyk is now, with \$46,000 from the National Science Foundation, examining the functioning of these complicated membranes in bovine heart muscle cells.

Mitochondria, structures found outside the cell's nucleus, have variously been likened to dynamos, engines or furnaces, generating most of the energy in the cell.

In this basic research "not targeted to a specific disease," Blazyk is studying structural changes in these membranes by a variety of techniques, including Fourier transform nuclear magnetic resonance spectroscopy.

"The Chemistry Department's newly-acquired instrument, purchased with the aid of a \$50,000 grant from Sohio, will enable us to use labeled probe molecules that will give more specific data than was possible before," he says.

The researcher is also working with Dr. Carl Backes, a neonatologist from the medical college, on finding a non-invasive way of diagnosing illness in babies. Formerly on the staff of Children's Hospital in Columbus, Backes will use masks to gather samples of the expired breath of infants, and Blazyk will analyze the samples using a state-of-the-art gas chromatograph purchased by the osteopathic college.

by Nancy Roe



Dr. Jack Blazyk

Sullivan: Working to Block Activation of a Cancer-Causing Pollutant

With 1,400 tons of benzo(a)pyrene (BP) being released into the atmosphere above the United States yearly, no one can avoid some degree of exposure to this known cancer-producing hydrocarbon.

It's this environmental pollutant (found in cigarette smoke, automobile exhaust and power station emissions) that chemistry professor Paul Sullivan is studying with \$200,000 in grants from the National Science Foundation and the National Cancer Institute.

More than 100 research groups are chipping away at this acknowledged "big problem," trying first to unravel the chemistry of the process by which BP is changed in cells into cancer-causing forms and then to find ways to block that process.

Sullivan's NSF and NCI studies are "complementary," he says, with the first more closely tied in with his earlier training in hydrocarbon molecules and rates of chemical reactions with antioxidants.

Antioxidants ("substances like the BHT put in bread to keep it fresh") have been shown to inhibit BP's cancer-inducing ability, and Sullivan is among the handful of scientists concentrating their efforts in this area.

"It's in the chemical conversion of BP by cell enzymes — its metabolism — that it becomes activated and can bind to the DNA molecules," Sullivan says. "So we search among the almost 30 antioxidants approved for human use to find those most effective in inhibiting BP activation."

After two years of screening antioxidants for their impact on BP activation in rat liver cells and bacterial cells, Sullivan found two inhibitors: Vitamin A and phenothiazine and its derivatives.

"It's no news that Vitamin A is an inhibitor of carcinogenesis," Sullivan says, "but we are contributing toward an understanding of how it blocks activation."

Phenothiazine is the parent compound of derivatives commonly used as anti-nausea agents and anti-depressants. Researchers are now looking at populations with a high use of such drugs, e.g., mental patients, to see if they exhibit lower cancer rates, according to Sullivan.

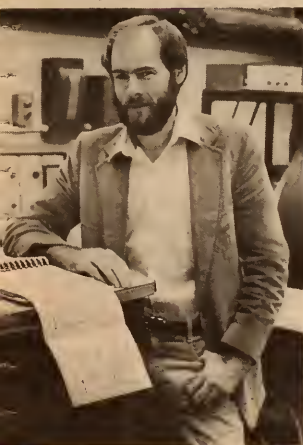
Having selected these two antioxidants, Sullivan and his students moved to examine how they worked: They metabolized BP both enzymatically using rat liver cells and chemically and used chromatography to separate out and precisely map the compounds (metabolites) produced during the process.

The next step is to add Vitamin A or various phenothiazines and study what effect each has on the metabolites: "We're trying to get a clear picture of what is happening chemically as the antioxidants interact with BP and its derivatives," Sullivan says.

"Basically, we are learning more about the mechanism of carcinogenesis. The more we know about the chemical processes involved in the activation of an agent such as BP, the more likely it is that we will someday be able to control it."



Dr. Peter Johnson



Dr. Paul Sullivan

Grants Support Basic Muscle Cell Research

Biochemist Peter Johnson currently has grants for work on the structure and protein chemistry of both skeletal and smooth muscle cells.

He is among 250 scientists world-wide receiving Muscular Dystrophy Association funds, with his totaling \$70,000. His research on rabbit muscle cells has centered on identifying interaction sites of protein molecules involved in the cell's contractile process.

"We've accomplished our primary goal, a specific, highly technical thing, and are now pursuing ramifications, including clinical ones," Johnson says.

Another project is backed by \$135,000 from the National Heart, Lung, and Blood Institute. Using bovine pulmonary artery, "the largest we can find," he is adding to basic knowledge of the muscle cell's infrastructure.

Johnson and the graduate students working with him are attempting to identify in molecular terms the building units of the cell's flexible scaffolding. The knowledge will

then be used to explain the business of scaffold flexibility and its relation to other cell functions.

"This will fill in some of the blanks in our knowledge of smooth muscle contraction," Johnson explains, "and may have a bearing on hypertensive diseases such as arteriosclerosis."

He is also seeking funds for research on the dipeptide carnosine which is found in high concentrations in muscle cells. What is carnosine doing there? How is it made? How is its synthesis in the cell regulated? are questions Johnson wants to answer. It seems possible to him that carnosine is linked to the cell's metabolism of the essential element zinc, so that certain muscle abnormalities which involve changes in zinc levels in muscle could be related to abnormalities in carnosine synthesis.

Research Has Implications for Muscle Diseases

Named the College of Osteopathic Medicine's Outstanding Basic Sciences Professor for 1980, John Howell has, with National Institutes of Health funding, been looking inside skeletal muscle cells at the molecular processes responsible for muscle contraction.

Using frog muscle cells, "the easiest to work with and essentially much like human muscle," he has reached a tentative conclusion. It's one with possible implications for various muscle diseases, including the weakness that is characteristic of the early stages of muscular dystrophy.

Such weakness may be due, he believes, to a failure in the process by which the electrical impulse generated by the nervous system travels down structures in the muscle cell called t-tubules, signaling the release of calcium ions which trigger protein molecules to generate movement and muscle contraction.

"This work indicates that loss of muscle contractility in a variety of pathophysiological conditions may be linked to changes in impulse conduction within t-tubule membranes," Howell says. "And as one hopes from basic research, it has led to a whole series of new questions."

Alumnus Investigates Biocompatibility Problem

Michael Gendreau's accomplishments speak for themselves.

At 25, Gendreau '76 has completed a PhD in pharmacology and is working on an MD at Ohio State University. He's also employed half to three-quarters time at Battelle Memorial Institute.

The young biomedical researcher made nearly 20 trips last year around and outside the United States to present papers, lecture and attend professional meetings.

Back in Columbus, he interacts with nine colleagues who are investigating an aspect of biocompatibility under an NIH grant awarded in 1979. The three-year award for the program is \$700,000.

The project involves studying the processes that cause blood to coagulate (clot) when it contacts artificial heart valves, kidneys, arteries and biological sensors implanted in the blood for medical reasons. He's using Fourier transform spectroscopy to examine protein absorption from the blood onto artificial surfaces, the event that initiates the deadly clotting.

"People die from this. It's very dangerous," says Gendreau, explaining that patients who have artificial devices in their blood are dependent on anti-coagulants for the rest of their lives. "And that is very inconvenient and can cause serious medical problems in itself," he adds.

Gendreau came to Ohio University to study in the Honors Tutorial College, where he worked under chemistry professor Peter Griffiths. He discovered early on that his interests lay in biomedical research.

"There's a direct application to medical problems," he explains. "It's also a very complex and multidisciplinary field."

Gendreau completed his MD in March and will complete his PhD a year later. His wife, Judy Fry '77, is the daughter of continuing education director Brent Fry.

She finished her MD work at OSU last year and is interning in Columbus. They're unsure where her future lies, but Gendreau is promoting his own first love: "I want to get her into research too," he says.



Dr. Michael Gendreau

Ohio University TODAY

Health: Basic Research on Campus

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Research Could Lead to Increased World Food Supply

The head of the Department of Zoology and Microbiology, Ronald Downey spent a year gaining expertise from the genetics group at Cambridge University, home base for Watson and Crick of DNA double helix fame.

"As a cell biologist I'll spend the rest of my life dealing with the nuts and bolts of the cell itself. The problems are so complex and require so many thousands of man hours, that the truth is I'll never be outside the cell," Downey says without a trace of regret.

Right now his research, underwritten by \$105,000 in NIH funds, is concentrated on the role of specific genes controlling a nitrogen-reducing enzyme in the cells of the common fruit mold, that ubiquitous blue-green fuzz we are all familiar with.

"If we can characterize the enzyme's form and function in more detail and learn to manipulate its genes, we will be able to transplant those genes into plants, imbuing them with the capacity to deal with nitrates more readily," he points out.

This research may sound forbiddingly complex, but it could be a key step in solving the food problem which looms as an even greater threat to human welfare and global stability than the better publicized energy crisis.

This year alone, American farmers will use fertilizers at the record rate of 24 million tons. This means that vital energy supplies will go to produce the fertilizers needed to improve crop yields.

If Downey's research is successful and taken up by a genetics engineering firm, it could mean our food grains could be made to flourish with nitrogen sources that would spare ammonia fertilizers. The end result? Dramatic increases in food production and lower food costs.

Neurobiologist Traces Nerve Cell's Development

Louise Luckingbill Edds, who came to campus from the Harvard Medical School, is among researchers working to contribute information on the neurobiology of the brain, one of the last frontiers of biological knowledge.

She is currently focusing her research on how a particular kind of nerve cell — "very similar to our own" — develops in the chick embryo.

Funded by \$20,000 from the American Osteopathic Association, she is looking at external factors in the nerve cell's environment that may affect its development.

"Cells are not static, but dynamic, with a history tracing back to the embryo," she says. "Their repertoire of reactions to the extracellular environment begins in the embryo. If we understand them there, we may understand them in the adult in both normal and diseased states."

The importance of the cell she is studying lies in its being a model for similar ones in the human brain which are linked to behavior. They are also believed to regulate the movement of food through the digestive system, so that, for example, Hirschsprung's Disease — a condition characterized by lack of movement of food in the lower digestive tract — could be tied to nerve cell abnormalities.

"I'm asking very basic questions about nerve cell development," Edds says, "building on what others have done and tilling in new places."



BY DAVID HELLER
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The simplistic view of the cell of 20 years ago—as little more than a nucleus enclosed in a minute sac—has given way to one of complex geography. Whether functioning in the brain of a genius or of a flea, a single cell is built of internal structures called organelles that are every bit as complex and specialized as the organs, tissues, nervous system, skeleton and skin of the whole body.

Much remains unknown, but the composite cell illustrated here shows major internal features of both plant and animal cells.

Alumnus Continues Studies of Skeletal Muscle Fiber

Harold Silverman, MS '74, PhD '77, is emphatic in his belief that teaching, research and publishing are inextricably linked.

"Developments are coming so fast in the sciences today that it's impossible to be a good teacher unless you're keeping up with your field, conducting research, following what is happening and contributing to it," he says.

Now an assistant professor of biology at Pan-American University in Texas, he is teaching courses in histology, cell biology and electron microscopy and — with a National Science Foundation grant — running an electron microscope facility.

His interest in muscle research began here when he worked with Dr. Robert Hikida, and was continued at the University of Toronto, where he spent 1977-79 on a post-doctoral fellowship from the Muscular Dystrophy Association.

Substantial support for his research on normal and dystrophic skeletal muscle fiber is pending from both the NSF and the MDA, and "the outlook is good," according to Silverman.

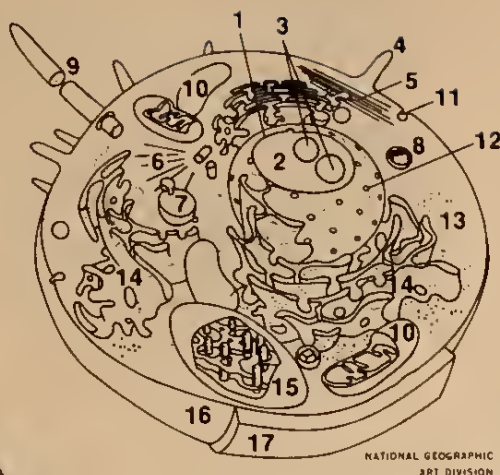
Dr. Hikida is listed as a coauthor on four of the nine papers Silverman has had published, and the younger scientist is quick to praise his mentor.

"It's hard to beat the research training Dr. Hikida gives you, or to match his willingness to sacrifice himself for his students. He sticks with them, waiting for them to gel. Others discouraged me along the way, but he believed I could do it and I'd tell myself, 'I can't let him down.' Then when the MDA fellowship came through I knew my own life would be bound up with research."

He is proud that work done with Dr. Hikida and later at Toronto has been well received by his peers. "It's cited, it's reviewed, it's asked for in press," he says.

Silverman, 30, is candid about the appeal of research: "It's the challenge of getting one answer that leads to asking the next exciting question that in turn leads to another. You have success, but if the research is going properly it doesn't end."

"When applying for grants we may stress our desire to contribute work potentially helpful to humanity, but it's that open-ended challenge, the excitement of answering questions that lead to others, that is the real pull of research."



- 1 Nucleus, the cell's heredity-bearing core, functions within a thin membrane called the nuclear envelope.
- 2 Fibers of protein-laced DNA within the nucleus comprise chromosomes, or packages of heredity-carrying genes.
- 3 An important component of ribosomes (13) is made in the nucleoli.
- 4 Protrusions that greatly enlarge the cell surface — microvilli — promote increased absorption.
- 5-6 Giving the cell some muscle, fine fibers called microfilaments (5) and microtubules (6) help maintain the cell's shape and have a role in its motion.
- 7-8 Scavenger organelles, lysosomes such as the digestive vacuole (7) and residual body (8), not only consume foreign matter and dead parts of the cell but, in the normal growth process, eventually recycle the worn-out cell itself.
- 9 Found in large numbers on certain cells, cilia act as oars in a liquid medium.
- 10 Dynamos of the cell, mitochondria convert sugar and fat derivatives into energy for the cell's use.
- 11 Porters for the cell, pinocytosis vesicles convey material from the surface to the interior.
- 12 Pores allow substances to pass to and from the cell's nucleus.
- 13 Anvils of the cell, ribosomes are where the many needed proteins are fashioned from amino acids, following a genetic code carried by a courier known as "messenger RNA" (ribonucleic acid).
- 14 A maze of channels, the endoplasmic reticulum, or ER, transports hormones, enzymes, and other compounds produced by the cell.
- 15 Unique to plant cells, the chloroplast carries out photosynthesis, which provides the cell with food and our atmosphere with oxygen.
- 16-17 Cell membrane (16) and, in plants, the much thicker cell wall (17) provide form and protection. Membranes, which control what enters and leaves the cell, have complex functions, including a role in the immune system's responses to infection and cancer — a puzzle now under intensive study.

Herpes Simplex Virus Is Research Target

Each year, millions of us suffer with either primary or recurrent forms of diseases caused by herpes simplex viruses, the target of William Blue's research on campus.

Before the virus, which must live in human cells, can reproduce and thus cause a disease, certain key enzymes must be produced. Blue and his students are working to identify these enzymes.

"We've made progress in identifying what we believe to be a key enzyme produced by herpes simplex virus called 'protein kinase.' These types of enzymes are known to be important to a wide variety of metabolic processes, so that if the viral enzyme can be blocked, the virus might be blocked from reproducing itself," Blue explains.

The National Institute of Dental Research has approved more than \$100,000 for this research, but the coming of a new administration has "put many new grants into limbo temporarily," he says.

In a second research project, Blue is probing the mystery of how the herpes virus becomes latent and is later reactivated. Mice which harbor a latent herpes virus are subjected to various drug treatments and to physical stress to try to determine where the virus is being harbored in the nervous system and what the biochemical mediators of reactivation are.

One offshoot of that project is the identification of a compound which prevents reactivation. "We hope it may be useful for treating humans who suffer from recurrent cold sores, herpes venereal disease, or shingles," Blue says.

A virologist whose research requires him to grow large numbers of viruses and live cells in his laboratory, Blue is also collaborating with molecular geneticist Tom Wagner on work with the tumor virus SV 40.

Cell Biologist Studies Patterns of Muscle Regeneration, Adaptation

A cell biologist whose research has been supported by \$250,000 from the National Science Foundation, Robert Hikida is also an Outstanding Graduate Professor.

In his experiments with grafting and transposing pigeon muscles he has been studying the patterns of muscle regeneration at the chemical, electron microscopic and ultrastructural levels, that is, at the ultimate physiochemical cellular level.

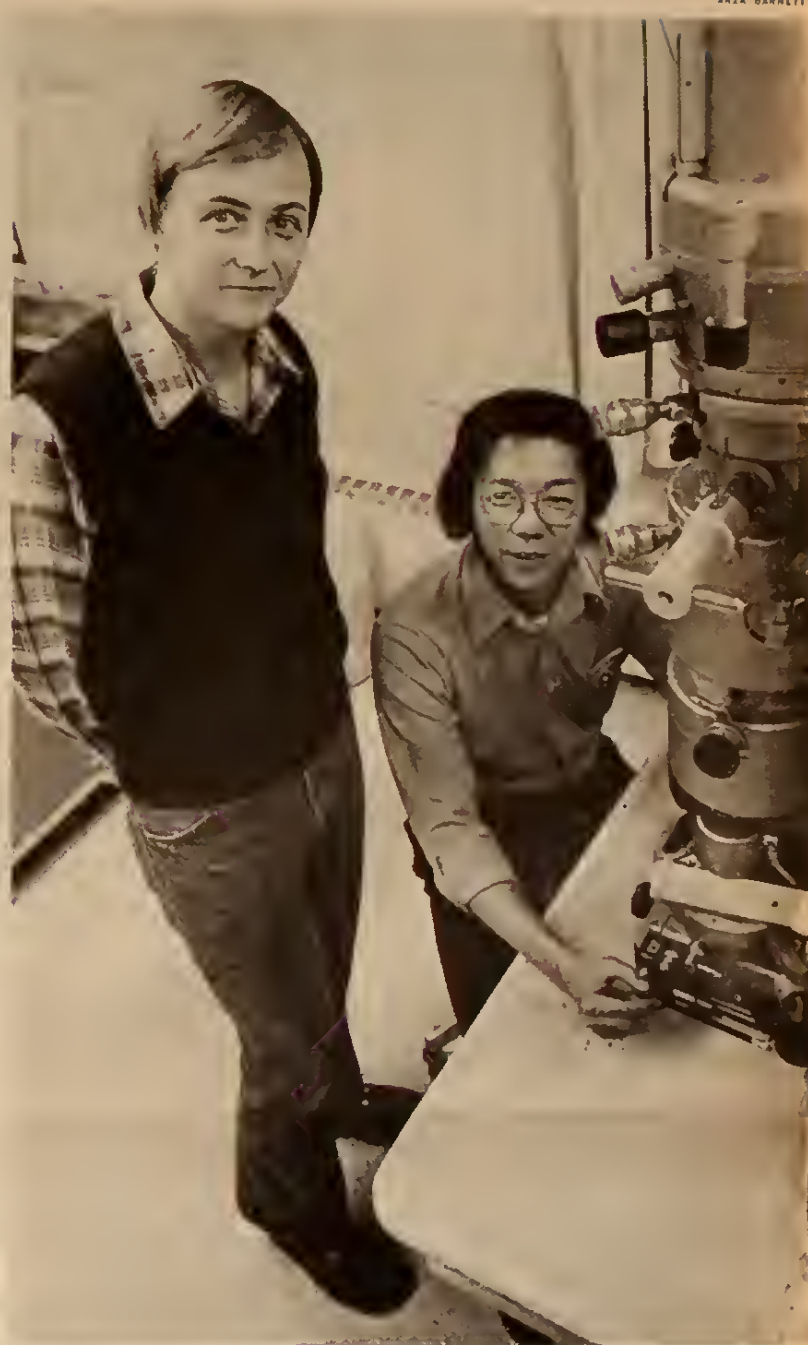
These kinds of experiments with muscle grafting and transposition are also taking place in medical schools and have been of some use in the treatment of facial paralysis, Hikida says.

"Plastic surgeons were using some of these techniques without knowing what was happening. We're looking at factors influencing what kinds of muscles are regenerated and whether regenerative capacity varies in young and old animals."

His hope is that the knowledge and techniques he and his students uncover will eventually be of use in the treatment of myopathic diseases (those inherent to muscles), e.g., muscular dystrophy.

In other research, Hikida is taking muscle biopsies from the thighs of trained athletes and examining what kinds of adaptations — again at the most basic cellular level — these muscles have undergone in different kinds of athletic activities.

"It may be that some kinds of athletic skills are already programmed into our muscle cells," Hikida says, adding that he's had lots of volunteers for the sedentary comparison group.



Dr. William Blue and Dr. Robert Hikida

Project Centers on How White Blood Cells Fight Intrusive Bacteria

After two years of postdoctoral work at the University of North Carolina, Malcolm Modrzakowski came to campus last September with a joint appointment in osteopathic medicine and zoology and microbiology.

"I hit it lucky," he says of his first grant — \$85,000 from the National Institute of Allergy and Infectious Disease. With it, he is studying rat leukocytes (white blood cells) and the antimicrobial components they carry that can kill bacteria.

For this molecular study of antibacterial activity, Modrzakowski selected the bacterium *Pseudomonas aeruginosa*, cause of the pulmonary infections fatal to many cystic fibrosis victims. A very common genetic disease, cystic fibrosis affects up to 2,000 children each year in the United States.

The basic research is designed to add to the body of knowledge of how our main line of defense, the leukocytes, works against intrusive bacteria. "It's part of a big and an old problem, on which progress has been slow and arduous," Modrzakowski says. "The key to basic research is to build a little more, fit another little piece into place."



Ohio University TODAY

PHOTOS BY ARZA BARNETT



Ohio University President Emeritus John C. Baker



Fund Celebrates 35 Years of Success

"... a faculty member's evaluation that the establishment of the fund had been my most important contribution as president. . . . Tonight I admit the professor was probably right." —

President Emeritus John C. Baker

Five major figures in the life of the Ohio University Fund, Inc., received special recognition April 24 at the 35th Anniversary observance of the fund.

President Emeritus John C. Baker and alumni John W. Galbreath, Joseph Gill, Fred H. Johnson and Edwin L. Kennedy were honored before a campus dinner audience that included alumni serving on the University's national fund and alumni boards and veterans of fundraising campaigns in Athens.

Speaker for the occasion was Dr. Baker, who initiated the establishment of the fund soon after beginning his 17-year presidency in 1945.

Reviewing the importance of the fund to the University over 35 years, Dr. Baker said he now agreed with "a faculty member's evaluation in 1954 that the establishment of the fund had been my most important contribution as president.

"At the time, I was dismayed, for I thought surely there were many more important innovations—the branches, graduate programs, foreign connections. Yet tonight, I admit the professor was probably right."

Dr. Baker recalled that the fund in its first year raised \$34,000 and had 609 contributors. By 1954, the sesquicentennial campaign goal was set at \$150,000 and brought in \$400,000, "proof that alumni of a state university would contribute liberally," Dr. Baker said.

President Charles Ping updated the benefits accruing from the fund, focusing on outstanding students on endowed scholarships, distinguished professors, research and library support. He reported 1981 statistics showing that Ohio University's endowment, which approaches \$26 million, ranks seventh in the nation among public single-institution universities.

"What we celebrate is not the past, but what this past means for the future," Ping said of the fund.

Of the four alumni honored, John Galbreath was a founding trustee of the fund. He served 25 years on the fund's board and as president for three terms. Among his gifts to the University is the Helen Mauck Galbreath Chapel, built in 1947. The 1920 graduate, who is also a lifetime University trustee, heads the John W. Galbreath Co. of Columbus, an international real estate and construction corporation.

Joseph Gill, a graduate of 1938, has served as secretary of the fund's board of trustees since 1955. He is associated with the Columbus law firm of Bricker & Eckler.

Fred Johnson, a University trustee for 30 years, continues his fund board membership begun in 1951. Johnson was instrumental in getting the channel of the Hocking River rerouted in the late 1960s, a measure to prevent flooding on the dormitory greens. Before retiring, he was president of the insurance firm of Rankio and Johnson, Inc.

Edwin Kennedy, a trustee of the fund since 1958, served as president for seven years. He was a University trustee for 16 years before retiring in 1975. With his wife, Ruth, the 1926 graduate established the John C. Baker Fund to support the campus Kennedy Lecture Series, the Distinguished Professor Award and the Baker Research Grants. He is a partner in Lehman Brothers, Inc., the New York investment house.



Honored for service to the Ohio University Fund — Alumni John W. Galbreath, Fred H. Johnson, Edwin L. Kennedy and Joseph Gill.

"What we celebrate is not the past, but what this past means for the future." —

President Charles J. Ping in a tribute to President Emeritus John C. Baker at the 35th Anniversary of the Ohio University Fund, Inc.

Ping: Universities Provide Human Capital for State Reindustrialization

President Charles J. Ping continues to argue his case for increased funding for higher education throughout the state.

Before community groups, industrial leaders, legislative committees and congressional delegations, Ping ties the services of universities to the economic future of the state.

The president reminds audiences that the manufacturing sector of Ohio has declined during the past decade while the nation as a whole experienced a 16 percent increase in manufacturing, that Ohio's capital investment level has been one-quarter of the national average, and that the state has had a net out-migration while population growth nationally has been approximately eight percent.

Ping says this record has prompted much talk about reindustrialization in the state. But, in his view, the focus has been too narrow.

"When we talk about 'reindustrialization,' we tend to think of capital requirements for the development of new processes and products, machinery and modernized plants," Ping states.

"Equally if not more important are the resources of human capital required to discover, design, develop and operate this new and vastly more sophisticated industry."

"Universities prepare the scientists and engineers who will address our questions of the future. This fund of high level intellectual capital is far from a permanent asset; neglect its development and it wastes rapidly," the president warns.

The research role of universities in rebuilding a healthy state economy is also stressed by Ping. "Research is the least recognized benefit and has the most direct return," he says.

University researchers are significant contributors to the state's fund of new knowledge and to major scientific and technological developments, Ping says. He cites a National Science Foundation study of major technological breakthroughs from 1960 to 1973 that found well over half the basic patents came from university-based researchers.

Ping draws from the University for examples of research that could benefit Ohio industry.

He reports on a project of chemist Peter Griffiths that deals with the analysis of coke. Coal research that is partially funded by the U.S. Steel Corp. The corporation estimates that it could save up to \$39 million annually if Griffiths' technique of analysis proves reliable.

A second example used by Ping is the work of chemical engineer Robert Savage, who is mixing heavy fuel oil and pulverized Ohio coal for use in industrial oil-fired boilers. The mixture is expected to produce energy for such boilers at approximately the cost of oil prior to the first oil embargo.

"How important to the future is such research?" Ping asks. "Consider the importance of the economic health of the coal and steel industries to Ohio and these questions answer themselves."

The president stresses that graduate students who share in such campus-based research projects will be the scientists and engineers addressing the problems of the year 2000 and beyond.

That the economic well-being of Ohio is tied to higher education is also evident in the increasing need for college-educated men and women in all fields, Ping warned. He cites Department of Labor reports that show the proportion of college graduates in the total work force has grown from 14 to 21

percent in the past 10 years. And he predicts that growth will accelerate.

"The real growth in jobs will occur in areas open to those who can respond to change, those who can absorb new knowledge and new technology, those who can analyze data and use imagination and develop intelligence to address problems and questions," he says.

Ping documents the underfunding of Ohio's universities not only in terms of future needs but by comparing Ohio instructional subsidies to those of other states and by measuring proposed budget adjustments against real cost increases.

The president does not ask for a greater share of the proposed state budget. "Underfunding is not a problem of equity of distribution but lies in the premise that there is to be no significant new general fund revenue," he says.

"Ohio is a low tax state with the necessary corollary that it is a low service state. The public policy issue is how low can—or should—be that service be."

"At both the national and state level we are funding the costs of survival, as we must," Ping says. But, he warns, "When we fund these costs at the expense of the future and then fail to fund that future, we have begun to consume the future."

Chapter Notebook

OHIO: Eleven hundreds of siblings and prospective students arrived at Baker Center on February 6 for Siblings Weekend. Sponsored by the Cleveland Women's Club, the trip funds scholarships for Cleveland area students. Chairpersons were Valanda Sutayak, Westside, and Peggy Everett, Eastside. The club held a mid-year luncheon February 28 at the Ohio City Tavern; a spring luncheon April 25 was hosted by the Westside section.

A rally after the Ohio University-Miami University basketball game January drew more than 30 Greater Cincinnati Alumni Chapter members and several University staff. The chapter's second annual St. Patrick's Day Party was held at Lucy's in the Sky at Cincinnati's Downtown Holiday Inn. Alumni also gathered for a student reception May 17 at the Quality Inn.

To cap summer activities, the chapter will sponsor its second annual "Ohio University Days" at King's and (See Calendar). For information contact the Office of Alumni Relations (614) 594-5128.

More than 700 attended the sixth annual St. Patrick's Day Tea at Fagan's in the Flats sponsored by the Cleveland Green and White Club.

Toledo area alumni were invited to attend a pre-game reception and dinner at Donnell's Restaurant February 18 coordinated by John Phillips '75 (419) 382-0184, who would like to hear from alumni interested in helping with future events. Phillips and Glenn Rambo '73 have agreed to serve as officers for the revitalized Toledo Alumni Chapter.

Sharing sponsorship for the March 12 St. Patrick's Day party held in German Village were The Columbus Green and White Club, Columbus Chapter and Central Ohio Alumni Chapter. Some 200 attended the event coordinated by Barb Kaufman '72, Central Ohio Chapter president. Responses to survey '70 activities, as director of the three area chapters should be directed to Kaufman (614) 457-9138, Tom Hess '73 (614) 457-3039, president of the Green and White Club, or Cecil Jones '74 (614) 239-6355 of the Metropolitan Chapter.

1981 officers of the Columbus Metropolitan Chapter are: president, Liebert Morris '72 and '80, vice president, Carretta James '79, secretary, Don Caldwell '73, treasurer, Winifred Collins '76, membership, Debra Dyer '79, activities, and J. Kenins also handled details of the May 13-17 Ohio University National Black Alumni Reception. Area alumni met at Baker Center for the third annual Alumni Lecture Series February 20 featuring dinner and discussion of the theater production *Johnny*. Director Judy Egg-Gilmore, set designer John W. Gilmore and music coordinator Dr. Claud Powell presented an insider's view of the production to 50 participants.

The Ohio University Mothers' Club of Greater Cleveland held a December 2 luncheon at the Women's City Club; other luncheon meetings were held January 13, February 17 and April 4 and 14. Programs included artistic performances and lecture-discussions on handwriting analysis and astrology. Area mothers rode buses to Athens for Mom's Weekend May 1-3. Trip coordinators were Darlene Bohland and Rosemarie Iacofano.

The Ohio Association of Ohio University Women holiday luncheon was held at the University Club December 6 with entertainment by the Copley High School Chorus. Dorothy Hunter's

book review served as the program for the February 7 meeting at Taylor Memorial Public Library.

Neda Mahov '40 hosted a March 7 program on "The Hovers and Their Clothing," and Ruth Thompson '46 hosted the April 4 meeting featuring a presentation by the Rev. J. B. Wolfe of Grandview United Methodist Church.

Harriette's Tavern in Kettering served as site for the third annual St. Patrick's Day Party March 14 for the Greater Dayton and Montgomery County Alumni Chapter.

WASHINGTON, D.C.: January 24 was Ohio University Alumni Night at the Washington Capitals-Buffalo Sabres hockey game. More than 30 alumni from the Greater Washington, D.C. Alumni Chapter gathered for a pre-game reception. Area alumni attended the first annual St. Patrick's Day Party March 16 at Ireland's Own in Old Town Alexandria. Both events were coordinated by Jeff Finkle '76 and Bruce McElfresh '76.

PENNSYLVANIA: Pittsburgh Alumni Chapter members are working on activities for late spring and summer. Both Valencio '71 (412) 262-3345, Nancy Scott '73 (412) 561-7143, and Herb Hungerman '74 (412) 276-8697 would like to hear from alumni with ideas.

FLORIDA: During the December reception for area alumni, new officers were named to head the Greater Orlando Alumni Chapter: Betty Jean Cochran, president; Sheila Lynn Cochran, vice president; and Harold Grubbs '73, treasurer.

Following its annual December luncheon the Florida Suncoast Chapter (Sarasota) announced coordinators for the 1981 meetings: Phyllis Poston '66, Bradenton; Corinne Miller '51, Sarasota; and Margaret Smith Bernard, Venice.

Efforts continue toward building a Tampa Bay Alumni Chapter. Coordinators are Mike '74 and Paula '74 Hern, (813) 974-2123 (office) and Anne '71 and Tom '77 Goff (813) 982-5551.

The first meeting of Central Florida alumni interested in organizing a chapter was in Mav. Interested alumni should contact Kendall Query '51 by writing Edgewater Arms 2C South, Sebring, Fla. 33870.

INDIANA: Tonia '67 and John '67 Oberlies have been named representatives for Indianapolis area activities. Alumni interested in helping with functions should contact John Oberlies at (317) 291-3154.

MASSACHUSETTS: The Massachusetts Alumni Chapter of Ohio University and Miami University alumni sponsored an afternoon party featuring radio transmission of the February 28 Miami-Ohio basketball game that drew more than 40 alumni. Chapter president Sanford Elows coordinated with the alumni office. An area-wide phonathon was held by the chapter May 12 and 13 to raise funds for the Monmouth Theater scholarship given each summer. Alumni Theater Night at the Monmouth Theater in Chatham, Cape Cod, is set for August 1. Details of the event will be sent to area alumni in late June.

MINNESOTA: The Greater Minneapolis Alumni Chapter held a dinner at the downtown Sheraton-Ritz on May 9 coordinated by Phyllis Gorman and Joe '69 Kohler. Head basketball coach Danny Neer was special guest.

ARIZONA: Coordinators for the Phoenix Alumni Chapter Jackie '73 and David '73 Beals organized the first annual picnic on May 2 at Eldorado Park in Scottsdale. A committee is currently making plans for a winter reception.

Col. Myron Lepore '58 was elected president of the new Greater Tucson Alumni Chapter at a dinner and chapter organization meeting March 12 at the home of Brian Dailey '58. Coordinators were Dailey and Betty Blackburn '32.

CALIFORNIA: Following a December luncheon for San Diego alumni, a committee was organized. Stephanie Starr '78 to coordinate activities for future get-togethers. Interested alumni should contact the Office of Alumni Relations.

The newly reorganized Los Angeles Alumni Chapter held its first event of the year on March 14, a St. Patrick's Day Party at Beachfront Burt's at Redondo Beach. Acting president, Les Angeles coordinating committee and the alumni office is Mary Jane Turner '72 (213) 430-6242.

ILLINOIS: The Chicago Alumni Chapter held its second annual spring alumni fund-raising banquet on April 30 at the Oakbrook Hyatt House in suburban Chicago.

WEST VIRGINIA: Huntington-Charleston area alumni gathered for their "first ever" event May 5, held at the Marshall University student center. Athletic Director Harold McElhenny and Alumni Director Barry Adams attended the event coordinated by the alumni office and Eric Manikas '73 (304) 523-2911 and Perry Sook '80 (304) 525-7661.

NEW YORK/NEW JERSEY: Representatives from the New York/New Jersey Alumni Chapter aided the admissions office at an area reception for prospective students May 3. More than 100 alumni attended a party following the event. The chapter also hosted a May 12 reception for retiring Dean of the College of Communication John Wilhelms.

MISSOURI: Wayne Kurinski, vice president for University relations, met with alumni from the St. Louis Chapter at their dinner February 7.

Ohio University TODAY



Go-Green Brunches and Receptions

Brunches and receptions for alumni, families and friends of the University will precede all Ohio University away football games this fall. Make your reservations early as each location has limited capacity.

MINNESOTA — SEPT. 12

Marriott Inn
1919 E. 78th St.
Bloomington, Minn.
10 a.m. - 12 noon — brunch,
cash bar
Brunch ticket price includes bus
transport to and from game.
1:30 p.m. kickoff
Memorial Stadium
\$8.30 brunch, \$10 football ticket
Paid reservations only —
by Aug. 28

TOLEDO — OCT. 3

Dining Room A,
Continuing Education Center
Bancroft and University Hills
Bldg., 2601 W. Bancroft —
Parking adjacent to center
6 p.m. - 7:15 p.m. reception,
no cash bar
7:30 kickoff Glass Bowl Stadium
\$7 reception
\$7 football ticket
Paid reservations only —
by Sept. 18

MIAMI — OCT. 24

Towers Room,
Miami University Center
Spring and Patterson Streets
11:15 a.m. - 1:15 p.m. — brunch,
no cash bar
1:30 p.m. kickoff — Miami Field
\$6 brunch, \$6 football ticket
Paid reservations only —
by Oct. 9

N. ILLINOIS — NOV. 7

Heritage Room
Holmes Student Center
Near intersection of
Lucinda Ave. and Normal
Road
Parking adjacent
11:15 a.m. - 1:15 p.m. brunch,
no cash bar
1:30 p.m. kickoff
Huskie Stadium
\$5.50 brunch, \$6 football ticket
Paid reservations only —
by Oct. 25

KENT STATE UNIVERSITY — NOV. 21

Rusty Nail Restaurant
7289 State Route 43
North of Kent
near Twin Lakes
Adequate parking for 200
11 a.m. - 1:15 p.m. brunch,
cash bar
1:40 p.m. kickoff — Dix Stadium
\$7.25 brunch, \$5.50 football ticket
Paid reservations only
by Nov. 6



Special Notes

All reservations are first-come, first-served. Football tickets will be distributed at the brunch or reception. For those individuals arriving late, football tickets will be left at the stadium walk-in window 15 minutes before kickoff. Orders for football tickets ONLY will be mailed to individuals prior to the game. Confirmation cards will be sent to all reserving meals and/or tickets.

A refund will not be issued to those ordering game and brunch reception tickets who are unable to attend and do not cancel in writing at least two weeks prior to the game.

Name _____
Street _____ City _____
State _____ Zip _____
Telephone (Home) _____ (Work) _____

Reservation and Ticket Needs

Sept. 12 Minnesota	_____ # Meals	_____ # Football Tickets
Oct. 3 Toledo	_____ # Meals	_____ # Football Tickets
Oct. 24 Miami	_____ # Meals	_____ # Football Tickets
Nov. 7 N. Illinois	_____ # Meals	_____ # Football Tickets
Nov. 21 Kent State	_____ # Meals	_____ # Football Tickets

Alumni having current addresses on file in the Office of Alumni Records and Research will receive an announcement of their local Go-Green Brunch.

I have enclosed \$_____ to cover the cost of meal reservations and football tickets. Make checks payable to "Ohio University Alumni Association" and send to Office of Alumni Relations, P.O. Box 869, Athens 45701. Please designate on the envelope which event the reservations are for, e.g., GO-GREEN BRUNCH — MINNESOTA

Of Interest to Alumni

Silver Anniversary

Members of the Class of 1956 are sure to enjoy their 25th reunion weekend scheduled for September 18-20.

Registration lasts from 2 until 6 p.m. on Friday, September 18, at the Ohio University Inn. A welcoming reception and class dinner and meeting is on the agenda for the evening.

On Saturday, September 19, the registration begins at 9 a.m. and lasts until noon. Following a special luncheon class members will watch the Bobcats tackle the Falcons of Bowling Green.

Saturday evening finds the class at a reception at the home of President and Mrs. Charles J. Ping. The evening is capped by a Silver Anniversary Banquet featuring special entertainment.

A complete 1956 Class Reunion packet (including reservation form) will be mailed in early summer to all class members.

Extern Program

The Student Alumni Board's Extern Program proved to be extremely successful in 1981. The program matches Ohio University students with alumni sponsors who work in the students' career fields. Students spend their week-long spring break with a sponsor, observing and learning about their profession.

Following the 1980 pilot program, which involved eight Ohio University juniors, the Student Alumni Board intensified its efforts. This year 42 students had the opportunity to spend spring break with alumni sponsors.

Externs were sponsored as far away as Los Angeles, Boston, Atlanta, Washington, D.C., and Chicago. In Ohio alumni sponsored externs in Dayton, Cleveland, Columbus, Lancaster, Cincinnati and Toledo.

Alumni interested in sponsoring externs in 1982 should write SAB Externship Program, Ohio University Alumni Association, P.O. Box 869, Athens 45701.

Homecoming '81

At Homecoming 1981 Ohio University's Bobcats will face the University of Cincinnati Bearcats — a rematch of the 1921 contest at Ohio's first homecoming. The Bobcats won 7-6.

That homecoming 60 years ago drew "2,000 persons, including alumni and over 300 recruits," according to archival reports. Since then, crowds have fluctuated with a recent high of 5,000 returning for the 175th Anniversary Homecoming, and only a modest drop-off last year.

The 1981 event is scheduled for Oct. 10 and alumni are advised to make plans early. A brochure (complete with ticket order form) will be available in July. To obtain yours, send a postcard to Homecoming 1981, Office of Alumni Relations, P.O. Box 869, Athens 45701.

Taiwan Gift

Chinese alumni in Taiwan have donated a print of a painting by Tung Pang-Ta (1699-1769) to be displayed in the Konneker Alumni Center. The print was presented in March to Alumni Director Barry Adams by Dr. Hwo-Wei Lee, Director of Libraries at Ohio University. Dr. Lee had returned from a trip to Taiwan where he visited several universities on behalf of Ohio University.

Alumni Authors

Recent books by alumni authors include *Last Rites and Other Poems* by David Citino '69, *Maladaptive Behavior: An Introduction to Abnormal Psychology* by Anthony Cimino '69, MS '71, PhD '73, and *Asian Journalism* by Elliott Parker, MA, MFS '70, and Emelia Marcellino Parker '70.

Citino, a member of the English faculty at Ohio State University's Marion campus, also edited *73 Ohio Poets*, an anthology, and founded *Cornfield Review*, a literary/arts journal.

Cimino is associated with the Veterans Medical Center of the University of Miami and with the Behavioral Medicine Institute, a private practice group in Miami. He is also the associate editor of the journal *Behavioral Assessment*.

Elliott Parker, a member of the journalism faculty at Central Michigan University, has been chosen a University Research Professor. Emelia Parker is a librarian with the U.S. Government Printing Office.

Alumni Director Barry Adams is interested in hearing from other alumni authors and hopes that they will send copies of their books for display in the Konneker Alumni Center.

Ohio University Days

The Greater Cincinnati Alumni Chapter is sponsoring the second annual "Ohio University Days" at King's Island Theme Park. Included are reduced ticket prices and a complete block of rooms for Ohio University alumni, faculty and staff and their families who wish to stay at the King's Island Inn. For \$9.35 (gate price \$10.95), alumni will be admitted on one of three days, August 7, 8 or 9. Children under two years of age are admitted free.

Room rates at the King's Island Inn for August 7 and 8 are \$72.27 or \$68.99 per day. Rooms can be reserved by calling toll-free to the King's Island Inn 1-800-582-3056 no later than July 6 and asking for rooms reserved for Ohio University alumni.

Tickets may be purchased by sending a stamped self-addressed envelope and check for \$9.35 per ticket order to Ohio University Days, P.O. Box 869, Athens 45701.

Alumni Calendar

June 6 Last day of spring quarter classes

June 6 Akron Association of Ohio University Women Picnic and Installation of Officers, 12:30 p.m. at 1715 W. Comet Road, Clinton. Contact Patricia Hercules (216) 882-4231.

June 8-16 Greek Isles Alumni Tour. Approximately \$1,099 from Cleveland or New York — full meals, airfare and accommodations. Two-day cruise of Greek Islands. Contact Office of Alumni Relations (614) 594-5128.

June 13 Commencement

July 16-19 Alumni College '81. Early registration 11:30 a.m. until 12:30 p.m. for "early bird" arts and crafts session participants. Regular registration from 1 until 5 p.m. at the Convocation Center.

August 1 Alumni Theater Night at Moomey Theater, Chatham, Cape Cod. Buffet dinner precedes the 8 p.m. performance and a cocktail party follows. Sponsored by the Massachusetts Alumni Chapter. Contact Sandy Elias (617) 542-1806, home, or (617) 332-5100, office.

August 7-8 Ohio University Days at King's Island entertainment complex, sponsored by Greater Cincinnati Alumni Chapter. Special rates for room accommodations, Aug. 7 and 8 at King's Island Inn — \$68.99 and \$72.27. Rooms will be reserved by alumni via Ohio toll-free number 1-800-582-3056 or by writing to 291 King's Island Drive, King's Island 45034. Att.: Reservations Dept. Alumni should request rooms listed under "Ohio University Alumni." Rooms not reserved by July 6 will be released to the general public. Tickets to King's Island Theme Park on August 7, 8 and 9 are available through the Office of Alumni Relations at the reduced rate of \$9.35 per ticket. Contact Office of Alumni Relations (614) 594-5128.

Aug. 27-Sept. 4 Ireland Alumni Tour. Approximately \$795 plus 15 percent departing from Cincinnati, Cleveland or Columbus, or \$649 plus 15 percent departing from New York. Price includes all transfers and baggage handling. Includes three nights in Dublin and four nights in Limerick. Contact Office of Alumni Relations (614) 594-5128.

People

Pre-1930s

Esther M. Greisheimer '13, BSEd '14, was inducted into the Ohio Women's Hall of Fame for her contributions to medical education as a teacher and author. Greisheimer is a resident of Ross County.

Mae Warfield '17, BSEd '27, appeared in the first edition of *Who's Who of American Women*. She was named Friend of Children by the National Foundation of Juvenile Court Judges.

John W. Galbreath '20, LLD '57, was awarded a doctor of commercial science degree from Bethany College in West Virginia. John W. Galbreath and Co. is responsible for the building and rehabilitation of townsites and housing developments across the nation and in Canada and Japan.

Lester D. Crow '23, LHD '72, is listed in the recently published 1980-81 edition of *Who's Who in the World*.

1930s

Mary Jean Beale Follrod '33 has retired as an elementary teacher after teaching for 28 years and tutoring for two years. She lives in Mt. Sterling.

Wallace M. Luthy '33 has retired from Alberta Petroleum Marketing Commission after serving as vice chairman since the commission's inception. He will continue as a consultant to the commission and to the oil industry.

1940s

W. Russ Clough '40 retired from Hanna Mining Co. after 38 years of service and resides in Sarasota, Fla.

Lee M. Rich '44x, president of Lorimar Productions, received the Industry Man of the Year Award in Los Angeles, Calif.

Jean Mallow Boyd '46 is a service representative for the Automobile Club of Southern California in Costa Mesa, Calif.

Ralph E. Loewe '47 has written a book entitled *A Reader For College Writers: Models, Methods, Mirrors*. Loewe resides in Cleveland.

Charles A. Calhoun '48 was reelected executive director of the Ohio Public Expenditure Council. Calhoun resides in Columbus.

Howard Harper '48 is sales manager of the Fastener Division of Kerr Lakeside Industries in Euclid.

Betty Lamb Massa '48 is board president of Mansfield Memorial Homes. She was one of five women chosen *New Journal's* Women of the Year.

Leroy S. Barnes '49 was appointed to the Ohio Accountancy Board in Columbus.

Milton E. Roush '49 has retired as district director of Farmers Home Administration in Syracuse following 29 years of service.

Alan Wurstner '49, a chemist/microscopist at Monsanto Corp. in Dayton, was named to the Dayton Tennis Commission's Hall of Fame.

1950s

Wayne R. Butterworth '50 has ended his 25-year dentistry career and is currently a broker for the Paul Revere Insurance Companies. He maintains an office at his home in Marion.

Robert B. Gay '50 has retired as port director in the U.S. Customs Service in Memphis, Tenn., after 32 years of service. He resides in Virginia Beach, Va.

Karl E. Lietheaecker '51 has returned to Austria after living in India, where he taught English and journalism.

George R. Northrup '51 is an engineering professor at Penn State University. He recently won a Department of Energy Award to develop a low-cost solar collector.

Melvin F. Sankovich '51 is manager of the nuclear fuel marketing section of Babcock and Wilcox's Nuclear Power Generation Division in Lynchburg, Va.

Robert J. Weidner '51 was promoted to vice president of BancOhio National Bank in Columbus.

Jessie Eichora Bechtel '52 is head of the laboratory department at Dettmer Hospital in Troy.

Harry F. Evarts, MS '52, is vice president of educational services with the American Management Association.

William A. Klauber '53 has been named president of the Life Underwriter Training Council in Washington, D.C.

Jack W. Greenwald '54 is the manager of Arby's restaurant in Rocky River. He lives in North Ridgeville.

James E. Rice '54 was presented with the Director's Award by Kennedy Space Center for outstanding leadership and guidance in the conduct of Source Evaluation Boards.

Robert A. Cuoniog '55 is president of the Ohio Genealogical Society. Cuning lives in Mansfield.

Sandra Dunipace White '55 is an office planner and sales representative for a business supply store in the U.S. Virgin Islands.

Donald D. Barry '56, coauthor of the book *The Legal Foundations of Public Administration*, is a professor in the government department at Lehigh University in Bethlehem, Pa.

John C. Davidson '56 is controller for the industrial chemicals division of PPG Industries Inc. He resides in Pittsburgh, Pa.

Bruce L. Humphrey '56, MS '68, has formed an editorial service operation which will provide communication expertise for industries, government agencies, private associations, public figures and authors in Newark.

Carl A. Muck Jr. '56 is director of internal auditing for PPG Industries Inc. He resides in Cornapolis, Pa.

Richard A. Nellis '56 is living in Scottsdale, Ariz., and has retired from industry.

Carman A. Frogale '57, a coordinator of occupational work experience at Washington Senior High School in Washington Court House, is president of the Ohio Occupational Work Experience Coordinators Association.

Philip E. Henderson Jr. '57 is a minister of Westminster Presbyterian Church in Lansing, Mich. Carolyn Harshbarger Henderson '58 is choral director at the Savel Schools in Lansing.

Russell Lee Maser '57x was promoted to manager of design, construction, and space planning in the property management division of the First National Bank of Atlanta.

David W. Mears '57 is an associate realtor with Real Estate Professionals Inc. in Huntington, W. Va. Mears is also vice president of the Huntington chapter of the Full Gospel Business Men's Fellowship Inc.

Clayton L. Stein '57, MFA '62, teaches drama at Chillicothe High School.

Brian G. Daily '58 is president of the Luncheon Is Served program in Tucson, Ariz.

Marsha L. Peoples '58, a kindergarten teacher in the Norwalk City Schools, has been installed president of the Zeta Chapter of Delta Kappa Gamma International Honor Society for Women in Education in Huron County.

Joan L. Kohout Tiernan '58 is a sales associate with Smythe, Carmer Co. in Solon.

Richard Lasko '59, MEd '61, is associate director of financial aid at the University of Toledo.

Gary E. Walker '59, BSME '60, was promoted to manager of the industrial marketing section at the General Electric Plant in Fitchburg.

1960s

Jaice L. Myers Gallently '60 is manager of tourism and convention services for the St. Petersburg, Fla., area Chamber of Commerce. Her husband, Alan D. Gallently '60, is an executive with General Telephone of Florida.

Ronald L. Holden '60 was promoted to assistant manager of tooling and process engineering at Therm-O-Disc in Mansfield.

Jack C. Kellenberger, MS '60, a Chillicothe attorney, is president of the Chillicothe Kiwanis Club.

H. Randall Litten '60 was promoted to vice president of Owens-Illinois Inc. Litten is general manager of plastic beverage operations for the Plastic Products Division. He lives in Sylvania.

Donald W. Van Hook '60 is an overseas advertising manager for John Deere & Co. in Rock Island, Ill. His wife, Beverly Hennen Van Hook '62 is a freelance magazine writer and a feature writer for the *Quad City Times* in Davenport, Iowa.

James L. Cummings '61 is the market manager for commercial tires at the BF Goodrich Tire Group located in Akron. He and his wife, Sue Ann Lewis Cummiags '62, reside in Wadsworth.

James A. Laureason '61 is a judge with the Federal Mine Safety and Health Review Commission in Washington, D.C.

John P. Perduyn '61 is director of public information for the Goodyear Tire & Rubber Co. in Akron.

Sandra Lee Standare '61 is office manager for Anchor Fence Corp. in Columbus.

Kenoeth L. Drum '62 is executive assistant of the Ohio Newspaper Association in Columbus.

Mabeendera P. Jaiswal, MBA '62, has opened a store, India Boutique, in San Francisco, Calif.

Donald W. McBride '62 is operations manager for Rubbermaid Inc. in Greenville, Texas. His wife, Elizabeth Reif McBride '63, MS '79, is an instructor at East Texas State University.

Raymond J. Asik '63 was promoted to director of administrative systems at Oberlin College Computing Center. He and his wife, Sandra Kovacs Asik '65, reside in Vermilion.

Larry A. Blank '63, senior vice president of sales for Shopsmith, has been appointed by Ohio University's College of Business Administration to serve on its Board of Visitors.

Richard J. Steves '63 was promoted to manager of marketing with General Electric's Medical Systems Division in Milwaukee, Wis.

Dennis H. Wilson '63 is owner of Caray Kennels and is also the manufacturer's representative for M. A. Blankenburg in Cleveland. His wife, Luana Sealey Wilson '63, MA '64, is a speech, language and hearing clinician in North Royalton City Schools.

Boonie Fisher '64 has published her book *Bonnie Fisher's Way with Herbs Cookbook*.

Ronald D. Giles '64 is manager of programming for Warner Cable Corp. of Pittsburgh, Pa.

Elleo J. Millman '64 was promoted to vice president of Corporate Financial Services of Ameritrust Co. in Aurora.

Penney Blackford Rakestraw '64 is an officer in the real estate corporation of William B. Saxbe and Associates Inc. in Dublin. Her husband, W. Vincent Rakestraw '63, is a partner in the law firm of Chester, Saxbe, Hoffman and Willeox.

Deois L. Stewart '64 is a humor columnist writing for the *Dayton Journal Herald's* "Off the Beat" Column.

Terry E. Trimmer '64 is a managing associate for Korn/Ferry International in Cleveland. His wife, Lorna Kay Stewart Trimmer '63, is a commercial interior designer with her own firm in Mentor, Interior Design Kay Trimmer Inc.

Susan Barnhart Valentine '64 is a speech therapist at G. F. Aukerman Inc. Medical Center in Sidney. Arlene P. Beasley '65, an account executive at KFI/KOST Radio, Los Angeles, has been appointed county commissioner. She is also serving on the board of the Private Industry Council.

Carl W. Calandra '65 was appointed president of Mrs. Giles Country Kitchen Inc., a major salad producer. He lives with his wife, Barbara Bell Calandra '65, in Lynchburg, Va.

Jon Engellenner, MS '65, is a staff writer for *The Sacramento Bee* in California.

Timothy F. Finley '65, a certified public accountant and financial executive, has joined Cannon Mills Co. in Kannapolis, N.C., as a senior vice president for finance.

Roselyn L. Freedman, MFA '65, is an associate professor at the American College of Rome, the international branch of the University of Charleston in West Virginia.

Jerry D. Houek '65 was promoted to staff engineer at GTE Service Corp. in Indianapolis, Ind.

Paul R. Leonard Jr. '65, D-Dayton, has finished his last term as a member of the Ohio House of Representatives. He has served as vice chairman of the Judiciary Committee.

G. Robert McCullough '65 is a partner with Hoag-Wismar in Cleveland.

Tara Singh '65 has established Resource Applications Inc., a consulting firm located in Vienna, Va., specializing in energy/environment areas.

Jane Wills Armel '66 was selected as one of the Outstanding Young Women of America for 1980. She and her husband live in Ridgewood, N.J.

Rita M. Erre '66 is director of the Knox County Alcoholism Center.

Buck Fetters '66 is the professional employment director for Monsanto Co. in St. Louis, Mo.

Vincent Gisone '66 has joined the firm of Dames & Moore, engineering and environmental consultants. He is living in Northboro, Mass.

Alan R. Guttridge '66 is owner and president of Coastal Printing Inc. of Sarasota, Fla.

Charles Hoffhine II '66 was promoted to the rank of master sergeant in the U.S. Air Force. Hoffhine is an inventory management technician at RAF Bentwaters in Suffolk, England.

Kenneth E. Kimmel, MS '66, is a lecturer in the Managerial Studies Division of the University of New England and is also an attorney practicing in Kennebunk, Maine. He resides with his wife, Koharie Saribekian Kimmel, MA '67, in Portland.

James P. McCormick '66 is principal in the South-Western City Schools system in Grove City.

Leonard E. Stahl '66 is manager of export sales for Asia/Pacific North for Arneo International. Stahl resides in Middletown.

Kenneth S. Sustin '66 is a tax partner in the firm of Coopers & Lybrand and will be serving Cleveland area clients.

Larry L. Brown '67 is a senior sales engineer for Franklin Electric in Noblesville, Ind.

Constance J. Clark '67, MS '80, is managing editor for the National Association of Credit Management's *Credit and Financial Management* magazine. She resides in New York City.

David L. Gillen '67 is teaching ninth graders at Wilder High School in Piqua.

Kenneth Gutbrod, MA '67, an operations officer for the 165th Military Intelligence Battalion in Frankfurt, Germany, has been promoted to major.

J. Christopher Hapner '67 is manager of news service for Alean Aluminum Corp. in Cleveland.

Stanislaus Hu, MBA '67, PhD '75, is the associate director of the MBA program at the Chinese University of Hong Kong.

Rodger W. Ingham '67 was promoted to senior industrial engineer at Arneo's Middletown Works.

George K. Lawson '67 is an elementary supervisor for Scioto County Public Schools. He resides in Wheelersburg.

James R. Morris '67 is executive editor for *Troy Daily News Inc.* in Troy.

Carolyn N. Prizler '67 was promoted to consumer products marketing manager for W. H. Kiefaber Co. in Dayton.

Janet R. Reuter '67, MEd '69, is an assistant professor of education at the University of Akron.

Elizabeth Brutvan Simon-Thomas '67 is teaching at the American School of The Hague in The Netherlands. She lives in Delft.

George Tomich '67 is the principal at New Albany High School.

Carl F. Vandy '67 is manager of the West Suburban Chicago district office of John Hancock Mutual Life Insurance Co.

Carol A. Voeltz '67, MEd '71, PhD '79, is assistant dean of Ohio State University's College of Administrative Science for External Affairs.

Thomas E. Burke '68 is senior vice president of Daneer Fitzgerald Sample Inc., an agency in New York City. He lives in White Plains, N.Y.

Joseph F. Ciminero Jr. '68 is vice president-treasurer of Heritage Securities Inc., an affiliate of the Columbus-based Nationwide Insurance organization.

Ava Booth Conley '68 is an associate professor at Harding University in Searcy, Ark.

Jerry W. Davis '68 is the Newark Division superintendent for Ohio Power.

Ohio University TODAY

Of Interest to Alumni continued

Addresses Wanted

Susan Kerkian, director of alumni records and research, would appreciate addresses for the following alumni:

James M. Gleason '71
Howard M. Gottlieb '46
Karen E. Graff '70
Richard L. Griffiths '76
Virginia Hamburger '38
Thomas C. Harrigan Jr. '63
Carol Hartley '67
Veronica A. Hegarty '60
Christine A. Hochwalt '74
Eileen F. Huguenard '40
Sandra Johnston '73
James R. Kachenmeister '70
Alan E. Kacica '69
John R. Kearney '74
Anita M. Laing '63
R. William Lauder '71
Lewis M. Lewin '75
Glenn A. Long '70
Janet Lyons '58
Dennis R. Mackay '72
Paul O. Mallue Jr. '74
Judith A. Ogilvie '69
Rose Onyema '77
Ina L. Parrott '17

Donations to Center

Three chapters have followed the lead taken by the New York/New Jersey Alumni Chapter and have made contributions to the restoration and renovation of the Konneker Alumni Center.

The Ohio University Women's Club of Cleveland presented an initial donation of \$600 to the Konneker Alumni Center and a \$100 gift in support of the alumni office. The chapter pledged an additional gift of \$100 to the alumni center.

The Greater Chicago Alumni Chapter presented the center with a watercolor entitled "Escape" painted by alumnus Charles Bensman '80. Additionally, the chapter sponsored an alumni fund-raising banquet in April to provide financial support for the new facility.

The St. Louis Alumni Chapter has donated paint and materials for completion

of the center's conference rooms.

Ohio University Women's Club of Cleveland president is Sheila Seifert '68. Heading the Greater Chicago chapter is Eileen Hess '69. President of the St. Louis chapter is Darryl Ross '73.

Other chapters wishing to contribute funds for the restoration, remodeling and operation of the new center should contact Alumni Relations Director W. Barry Adams.

Trustees Academy

The Trustees Academy, the University's major gift society, has the following six new members. Academy members make a \$10,000 cash gift, pledge that sum over 10 years or arrange a \$25,000 deferred gift:

Lee and Sharon Jones Davidson (Lee, MS '67; Sharon '62) of Leatherhead, England. Designation: 50 percent for the School of Music, 50 percent for the Department of Electrical Engineering.

Dr. and Mrs. T. Richard Robe (Eleanora '54; Richard, MS '62) of Athens. Designation: To be restricted annually.

John E. Seaman of Athens. Designation: Providing Athletes with Scholarships (PAWS).

Mr. and Mrs. L. Dale Springer (Harriette; Dale '49) of Spring Valley. Designation: 50 percent for the Industrial Technology Department and 50 percent for the College of Education Media Center.

Frank and Beverly Zammataro (Frank '63; Beverly '63) of Hudson. Designation: Unrestricted.

The sixth membership was an anonymous one designated for the Photography Department.

In the winter *Today*, several of the TA listings were not precisely correct and should have read as follows:

Helmut and Lotti Zwahlen of Athens. Designation: Department of Industrial and Systems Engineering Traffic Safety Fund.

Sports, Inc. of Athens. Representatives: Mr. and Mrs. Earl Funk and Mr. and Mrs. John Warman. Designation: Providing Athletes with Scholarships.

Charles L. and Alan K. Fulks, D.D.S., of Athens. Designation: 50 percent to PAWS and 50 percent unrestricted.

People continued

William R. Dunlap Jr. '68 is principal of Bloom-Carroll High School in Canal Winchester.

Zillah Eisenstein '68, associate professor of politics at Ithaca College, Ithaca, N.Y., has written the first publication in the *Longman Series in Feminist Theory*, a forum for feminist contributions to political theory and public policy.

Timothy M. Flanagan '68 was elected to the State Board of Education. Flanagan, a partner in the law firm of Rippner, Schwartz & Carlin, resides in Cleveland.

Elsie Andersoo Grebe '68 was the winner of the *Dayton Daily News* fourth annual Favorite Recipe Contest.

Kenneth A. Kovach '68, MBA '71, has written a book titled *Reading and Cases in Contemporary Labor Relations*. Kovach is a professor of business administration at George Mason University and lives in Landum, Md.

Marjorie Vail Black, MEd '69, has written a book entitled *The Canton Chronicles*. She is a resident of Canton, Minn.

William E. Boone '69 is manager of engineering at Bear Archery, subsidiary of Walter Kidde & Co. Inc. Boone resides in Ocala, Fla.

James H. Bross '69 is territory manager in sales organization of A. E. Staley Manufacturing Co.'s industrial products group, located in Decatur, Ill. Douglas L. Bureman '69, MEd '72, is the traveling secretary for the Cincinnati Reds.

Richard B. Freeman '69 has completed his residency training in otolaryngology in head and neck surgery at Barnes Hospital, St. Louis, Mo. He is in private practice in Cleveland and holds a part-time teaching appointment in the Department of Surgery at Case-Western Reserve University.

James H. Hill '69, public relations manager for Johnson Wax, received a bronze award for excellence at the 1980 International Film and Television Festival of New York for his film, *The Chester Lewis Story*.

Ted A. Hunt '69 is supervising site selection and acquisitions, project developments and leasing for Stelis Development Corp. in Fort Lauderdale, Fla. Hunt and his wife, Liada Kirk Hunt '69, and children reside in Plantation, Fla.

John E. Josephson '69 was promoted to controller for Kroger Co. in Columbus.

David M. Keck '69, MEd '71, teaches social studies at Westerville South High School and his wife, Kathleen Weber Keck '71, teaches home economics at Westerville North High School.

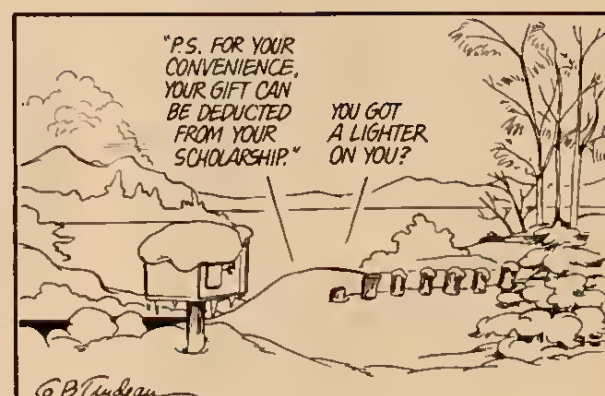
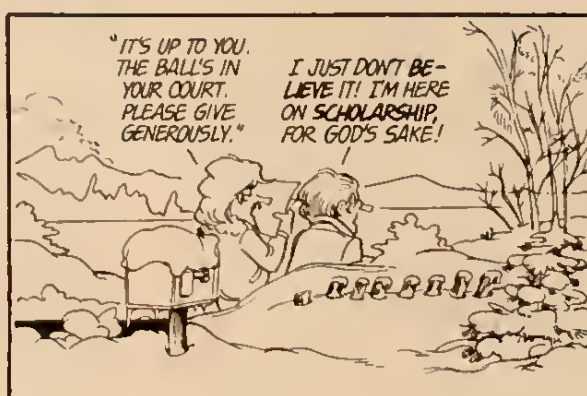
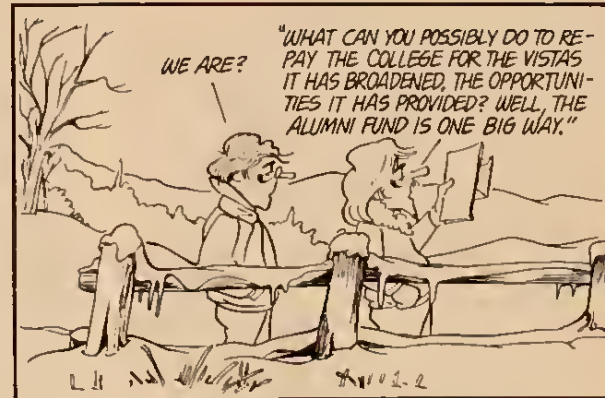
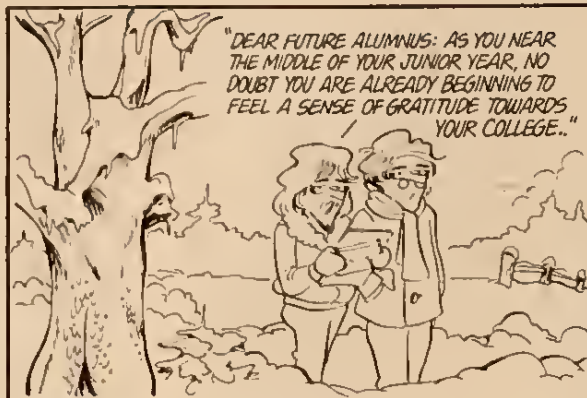
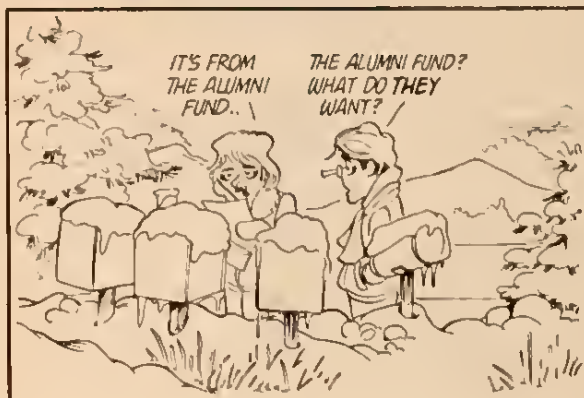
Robert J. McFarland '69 is officer in charge of the Dental Clinic at Hunter Army Airfield. McFarland is residing in Savannah, Ga., with his wife, Martha Harpham McFarland '69.

Michael J. Papalia '69 is employed by General Tire & Rubber Co. in the Chemical and Plastics Division in Newcomerstown. Papalia and his wife, Lois Gruber Papalia '69, reside in Coshocton.

Patricia R. Redmond '69 is an elementary teacher in Orange City Schools in Cleveland.

DOONESBURY

by G.B. Trudeau



No. Ohio University hasn't gone the way of Doonesbury, and students are not being solicited for the Annual Giving Program. However, hundreds of students have given their time and energies to assist with the national phonathon this

April. We ask that you consider joining them and us in support of Ohio University this year before the Annual Fund Campaign concludes June 30. There is still time to be counted.



The Ohio University Fund, Inc.
P.O. Box 869, Athens, Ohio 45701

James D. Rode '69, executive vice president of Ameritrust Co. in Cleveland, has been elected to the board of directors of Ameritrust of Stark County.

Roz Kuzman '69 is serving as press aide for U.S. Rep. Bob Shamansky (D-Columbus).

Arthur W. Steller '69, MEd '70, PhD '73, is assistant superintendent for elementary education in Shaker Heights.

Carol J. Templeman, MS '69, was a joint recipient of the 1980 Carl S. Beehberger Award for Human Development. The award was given to Baldwin-Wallace faculty members who have made a significant contribution to the personal development of students outside the classroom.

Richard J. Vergari '69 is living in Los Angeles, Calif., and is working for Document Express.

1970s

Robert L. Carman '70 is president of Prototype Technology Inc. in Troy.

Sara Chapman, PhD '70, is executive assistant to the chancellor of the University of Wisconsin-Eau Claire.

Condr. John V. Chenevise '70 is serving with the U.S. Navy in the Western Pacific.

Conroy A. Gedeon '70 is a sales representative for Detroit Steel and Inland Steel Co. subsidiary located in Los Angeles. Gedeon also has appeared in many commercials and modeled for More cigarettes in *Jet*, *Ebony*, and *Esquire* magazines.

John C. Laiter '70 is a pilot with Eastern Airlines based in Atlanta, Ga.

Michael R. Maul '70, MA '72, is director of public relations for Falmouth Ferry Inc. in Cincinnati.

John F. Montgomery '70 is vice president of education of West Shell Inc. Realtors in Cincinnati.

Michael B. Schott '70 is president of Poland Water Co. He resides in Wilton, Conn.

Teresa A. Sharp '70, an associate director of Bowling Green State University's News and Photographs Services, was presented with the Outstanding Faculty-Staff Member in Communications Award by the university's student chapter of Phi Kappa Phi.

Thomas E. Slater '70, MEd '72, is secondary school supervisor for Jackson County.

Paul M. Stiers '72 is an assistant office manager for the operations section for the Ohio Department of Mental Health.

Michael J. Sullivan '70 was appointed business services officer for the Hudson area by General Business Services Inc.

Bruce A. Tabashoe '70 is the director of the Department of Taylor Woodcraft in McConeville.

Mark R. Weaver '70 has received his doctorate in political science from the University of Massachusetts in Amherst, Mass. Weaver is working in the political science department of Western College.

His wife, Irene Budster Weaver '70, is a staff member of the Wootter Elementary School.

John A. Gierke was promoted to operations coordinator of production scheduling for Rubbermaid in Chillicothe.

Michael P. Workman '70 was promoted to general manager of Taylor Woodcraft in McConeville.

Darless J. Brown '71 is an assistant dean of student services at Ohio Northern University in Ada.

John E. Gierke is director of the Pickingering School of Dance in Pickingering.

Awilda H. Clemens, MEd '71, is principal of Wootter Elementary School in Wootter.

Cindy Wozniak Conard '71 is bookkeeper at the Western Stark County Mental Health Center in Massillon.

Joel K. Greenberg '71 is a Cleveland area supervisor for Sel Joy Inc. Greenberg resides in Mayfield Heights.

Deborah Lee Ince '71 is a ninth grade teacher at Midview High School in Grafton.

Thomas R. James, MS '71, PhD '74, is an assistant professor in the department of mathematical science at Western College in Westerville.

Andrew J. Kelley '71 is a supervisor at Ironton's Coke Corp.

John A. Schaeffer '71 is a fifth grade teacher at Tallmadge Elementary School in Tallmadge and was honored with the Outstanding Teacher Award.

Jerry R. Lane '71 is director of the Orville Boys' Club.

Jack A. McMorris '71, MS '73, is a senior systems analyst at Arco Chemicals Co. at the Lyondell plant in Chamblin, Tex.

Thomas E. Morris '71 is manager of the Ashland area of Columbia Gas of Ohio.

Curtis Blaine Nichols '71 is an associate with the law firm of Fields and Hollister in Marietta.

Ronald K. Roynon '71 is director of marketing for Porcelain Products Co. in Carey.

Gary C. Schaeffer '71 is creative director and account supervisor for the Inter-Echo Co. Ltd. in Tokyo, Japan.

Wesley N. Connor '72 was named Speaker of the Year by the Ohio Insurance Institute. He and his wife, Sally Cook Connor '75, reside in Worthington.

Thomas S. Diller '72, MA '73, is a financial aid director at Hocking Technical College in Nelsonville.

Michael J. Doyle '72, MS '73, is director of special campaigns for Ohio State University. His wife, Linda Miller Doyle '73, MA '74, is a speech pathologist for Westerville City Schools.

R. William Funk '72 has joined Heidrick and Struggles, an international executive search firm, as an associate in the Houston office.

Rex A. Hunter '72, MS '74, is a senior research chemist with I.V. Conversion Systems in Philadelphia, Pa.

Donald H. Kincaid '72, MBA '75, was elected vice president of the Toledo Trust Co.

Amy Orndorff Kora '72, MA '74, is a member of the English Department at Bergen Community College in New Jersey. Her husband, Richard Kora '72, is working for J. C. Penney in New York City.

Julianne Mogavero '72 is director of the Fairfield County Children's Home.

Susan Weiss Mulgrew '72 is president of her own business, Fiber-Seal of Central Ohio, and is also a contributing editor for *Columbus Monthly* magazine. She is coauthor of a new college textbook, *Personal Finance*. Her husband, D. Bruce Mulgrew, MA '71, is an associate executive director and corporate counsel for the Ohio State Medical Association and is chief Washington lobbyist and has responsibilities at the statehouse level.

Anthony J. Pence '72 is manager of creative services for the Firestone Tire & Rubber Co. in Akron.

Richard A. Penella '72 was promoted to IV products marketing manager at IVAC Corp. in San Diego, Calif.

William Perry '72 is a lawyer with the U.S. International Trade Commission in the General Counsel's Office. Perry resides in Alexandria, Va.

Richard L. Ralston '72 is city editor of *The Evening Review* at East Liverpool.

Marion R. Stoneburner '72 has been promoted to manager of power transmission sales for Bearing Inc. in Cleveland.

Josephine Swagert '72 was promoted to quality insurance team leader at Rubbermaid Party Plan Inc. in Chillicothe.

Stephen P. Weir '72 is the executive manager of the East Liverpool Area Chamber of Commerce.

Michael Wischoia '72 has his own electrical contracting business in Philadelphia.

Apoc L. Arnett '73 is chosen Mother of the Year by her pupils at Frayezburg Elementary School in Tri-Valley School District in Warsaw.

Harry W. Barr III '73 is the banking officer in the Retail Banking Department at Wachovia Bank and Trust Co. in Winston-Salem, N.C.

Gary K. Craig '73 was promoted to mortgage loan officer in the residential mortgage loan department at BancOhio National Bank for the Akron area.

Leonard Epstein, PhD '73, is working in the Department of Psychiatry at Western Psychiatric Institute and Clinic in Pittsburgh, Pa.

K. Allen Hines Jr. '73 has joined E. F. Hutton Co. as a member of the firm's new Accelerated Management Training Program in Minneapolis. Hines lives in Burnsville, Minn.

Charles E. Hoffman '73 teaches learning disabilities in the seventh grade at the Circleview Junior High School.

Pamela J. Hubert '73 is a freelance writer living in Wadsworth.

John J. Owens '73 is advertising director of BancOhio National Bank in Columbus.

Frank Peters '73 is the assistant prosecutor of Tuscarawas County in New Philadelphia.

Kevin S. Rice '73, MEd '76, is a high school science teacher and freshman football coach in Jackson County.

Ronald D. Rieland '73 has been named editor-in-chief of *Pittsburgh Courier*.

Alan L. Sandell '73 is a research assistant in the Laboratory of Archaeology and History in the Department of Anthropology at Washington State University in Seattle, Wash.

Robert W. Stone '73 is on the staff of real estate sales associates at the Tricentree Office of Parchman and Oyster Realtors in Lakeland.

Beverly Rawlings Storz '73 is teaching art at Canal Fulton Elementary School in Canal Fulton.

Paul R. Vajner, MS '73, PhD '75, is an assistant professor of psychology at Case Western Reserve Medical School in the Department of Pediatrics and Psychology.

James A. Vatech '73 is vice president of Conrad-Koch & Associates, an advertising, marketing and promotional agency in Columbus.

Gladys Batchelor '74, MEd '78, is a financial planner and consultant specializing in the financial needs of women. Her biography will be in the 12th Edition (1981) of *Who's Who of American Women*.

Lehman C. Beall III '74 is in business for himself as an accountant in Columbus. Beall and his family reside in Dublin.

Robert R. Belcher '74, BBA '76, was promoted to administrative assistant to the Lima Division manager for Ohio Power.

Charles E. Brown '74, public relations specialist for the Central Blood Bank in Pittsburgh, Pa., is president of the Public Relations Society of Health Care Administrators in Pennsylvania.

Kathleen D. Connick '74 has been named director of the medical library at Good Samaritan Hospital in Cincinnati.

Leah E. Connick '74 is on the sales staff of Century 21 Plour Realty Inc. of Athens.

Bruce C. Duzweiller '74 is president of the Ohio Chapter of the American Institute of Real Estate Appraisers Candidates Organization of the Ohio Association of Realtors. Duzweiller resides in Defiance.

Robert Esper '74 is a salesman with Union Carbide Corp. He and his wife, Kathleen Konkid Esper '74, reside in Clarence, N.Y.



IRELAND ADVENTURE

August 27-September 4

Ireland remains one of the most popular destinations for tourists, and this year's Alumni Travel affords participants an opportunity to experience this unique and beautiful country. The holiday includes three nights in Dublin and four nights in Limerick, round-trip air transportation via Air Lingus (commercial connecting departures from Cleveland, Cincinnati, and Columbus) and numerous optional tours in both Dublin and Limerick. Price per person, including all transfers and baggage handling, is just \$759 plus 15 percent. A New York departure price is available for \$649 plus 15 percent.

HAWAIIAN HOLIDAY

One and Two Week Options

November 11-18 and

November 18-25

Join other Ohio University alumni and friends as they begin the winter months with a holiday in Hawaii for one or two weeks. Included in this trip is round trip airfare via United Airlines with convenient departures from Cleveland, Cincinnati, Columbus and Dayton, hotel accommodations at the Pacific Beach Hotel, deluxe lodging at the Hawaiian Regent Hotel, several optional tours to other islands and all transfers and baggage handling. A special feature allows you to stay one week for only \$759 plus 15 percent and two weeks for an additional \$259 plus 15 percent.



When available, please send me complete information on the alumni tours checked below:

- ☐ Ireland Adventure
☐ Hawaiian Holiday

Name _____

Address _____

City _____

State _____ Zip _____

Gerald R. Jenkins '74 was appointed a trustee of Shawnee State Community College. He and his wife, Cynthia Mucha Jenkins '64, reside in Portsmouth.

David Jenikar, MA '74, has received the juris doctor degree from the University of Toledo. Jenikar plans to practice communication law.

Richard B. Meril '74 is the local sales manager for WFAA television in Dallas, Texas.

Robert W. Merrigan, MA '74, has joined the U.S. Foreign Service and is assigned to Lagos, Nigeria, as a vice consul.

Nicki S. Miller '74 is a section manager in the packaging department of Avon Products Inc. in Cincinnati.

Robert R. Robinson '74 is the radio program manager for Market Public Broadcasting Station in Orono, Maine.

Lawrence N. Simon '74 is a corporate sales production manager for Edward Don & Co. in Oak Brook, Ill.

Richard Beckman '75 is a special education teacher at Shenandoah High School in Caldwell.

Nathalie L. Bloom '75 had the role of "Elmer" in the movie *Popeye* with Robin Williams and Shelley Duvall.

Craig E. Hackman '75 was awarded second place in the Staten Island Museum 1980 Annual Exhibition for his oil painting "Lilith in the Bower".

Joseph W. Heston '75 was promoted to unit manager/associate program producer for the *Evening Magazine* at Westinghouse's Boston station, WBZ-TV.

Ohio University DAY

People continued

Anne L. Hoff '75 has received her PhD from Bowling Green State University.
R. Kenneth Kerr III '75 was promoted to vice president of sales of Kerr Companies in Athens.
William R. Langevin '75 is working with Talt Broadcasting Co. in Cincinnati.
Thomas W. Ramey '75, BJC '77, is a patrolman for the Chillicothe Police Department.
Martin Rosenman '75 is sports editor for *Upper Arlington's The News*.
Richard L. Smith '75 is a technical service manager for Ashland Chemical in Columbus.
Michael Stevens '75 is an advertising executive with Piza Hutz of Ohio, headquartered in Athens.
William R. Stewart '75, MEd '76, is an athletic information director for the Ohio Athletic Conference in Columbus.
Donald E. Wagner '75 is an assistant auditor for Central Trust Co. in Newark.
George F. Adams '76, an air defense artillery officer assigned to the Army's Training and Doctrine Command Systems Analysis Activity at the White Sands Missile Range, N.M., was promoted to captain.
Brian C. Cognata '76 is an electrical superintendent for Spring Creek Coal Co. and is living in Sheridan, Wyo.
Stephen C. Downs '76 is manager of sales training and promotion for USV Pharmaceutical Corp. in Tukalohe, N.Y. He resides in New Fairfield, Conn., with his wife, Carol Riley Downs '75, and son.
Terry W. Tarren '76 will appear in his first motion picture role in *Final Exam*, a horror movie set against the backdrop of a college campus.
Gerald Gatoux '76 is the Spanish and French teacher at Circleville High School in Circleville.
Peter D. Guglietta '76 is a sales service representative for Ames Safety Envelope Co. in Soudersville, Mass.
James C. Jackson '76 was appointed to the membership committee of the Ohio Society of Certified Public Accountants. He is a resident of Westlake.
Owen Keller '76 is a certified athletic trainer at Swanton High School in Swanton.
Deborah Ann McCauley '76 has been accepted for the cooperative PhD program of Columbus University and Union Theological Seminary in New York City.
Katherine L. Maurath '76 is doing her residency at Good Samaritan Hospital in Cincinnati.
David L. Peadry '76 has passed the Ohio Bar examination and will practice law in Xenia.
Daniel C. Peters '76 is a service station manager of Ashland Oil Co. in Cleveland.
George A. Bailly '77 is enrolled in the JD/MBA program at the University of Pennsylvania Law School and the Wharton Graduate Business School.
Gayle A. Raran '77 is teaching speech and hearing at St. Andrew School in the Upper Arlington Public Schools system in Columbus.
James R. Barrett '77 was promoted to controller of the Portsmouth Bank.
Jeanette A. Dubrich '77 is on the editorial staff of the *Mt. Vernon News*.
Edward L. Holden '77 is an engineer at Stone & Webster in Englewood, Colo.
Robin Holding '77 was awarded an apprenticeship by the Director's Guild of America. Holding has been working at the Burbank Studios of Columbia Pictures.
Craig W. Holman '77 is a staff photographer for the *Columbus Dispatch*.

Richard A. Kilgore '77, MBA '78, is working in the economics, accounting and business department as an assistant professor at Muskingum College in New Concord.
Robert E. Marvin Jr. '77 is employed by the law firm of Cassidy, Meeks and Nichol in Columbus.
Carolyn N. Merriman '77 is the director of Help Anonymous in Delaware.
Alan D. Mirkio '77 works for Allen's Druggists in Youngstown, and has passed his certified accountant test in Ohio.
Larry Neicher '77 is a reporter-editor with Scripps-Harvard Newspapers in Louisville, Ky.
Susanne Pepper '77 is a youth program director for the Athens Community Center.
Kim M. Rose '77 has won the \$200 second prize in the Nuffan Burkan Memorial Competition for an essay on copyright law.
David B. Small '77 is the director of the post-grad program instituted by Hucherry House in Columbus.
Kim Allen Vieris, MA '77, was selected for a two-year appointment as a presidential management intern in a program established by former President Carter. He is working in the Office of the Assistant Secretary for Administration in the Department of Transportation in Washington, D.C.
Vieris and his wife, Sara Jane Bradley '75, reside in New Carrollton, Md.
Sarah A. Winters, MEd '77, is an assistant principal director at the Gallop Development Center.
Daniel R. Young, MS '77, PhD '80, is on the psychology faculty at Elmhurst College in Elmhurst, Ill.
Jeffrey W. Baker '78 is director of Morgan County Nursing, Alcohol and Substance Abuse Advisory Council Inc.
Daniel Davis '78, MM '80, is director of bands at Belpre High School in Belpre.
Timothy J. Hahn '78 is a motion picture producer at the Rax Roast Beef restaurant in Athens.
Donald J. Kochan '78 was promoted to officer with the Bank of America group in Cleveland.
Gary E. McManus '78 is director of broadcast services for SBA Advertising agency in Canton.
Dennis P. McNeal '78 is district sales manager for Cummins Motor Corp. U.S.A. in Pittsburgh, Pa.
Hoo, Hamza M. Ngarjwa, MA '78, is a representative in the Nigeria National Assembly.
Gary L. Schaner, MFA '78, is an instructor in drawing at Cleveland Art Institute and director of a portfolio preparation project for high school students.
David Jay Tribby '78 teaches students of various ages and learning capabilities at Coalition Elementary School in Coalition.
Robert A. Wolfe '78 has received his funeral director's license in Pennsylvania. He is a staff member at the family business in Pittsburgh, Pa.
David Zielinski '78 is a medical specialist for Good Samaritan Hospital in Dayton. He recently had two photographs published by Polaroid Corp. in the issue of *Focus*, a magazine devoted to medical photography.
Janice Brodard '78 teaches reading, science and art to educable mentally retarded children at the Fairwinds of Ohio in Irondale.
Dwight L. Ferguson '78 is a sales representative for Proctor & Gamble Distributing Co. in Clayton, Mo.
Robert L. French '79 is a quality assurance manager for Kenworth Truck Co. in Chillicothe.
Barbara L. Hanger, MFA '79, is teaching drawing, print, paper making and sculpture at Longfellow School in Toledo.
Kent B. Jones '79 is staff announcer and sales production coordinator with WEHT-TV in Evansville, Ind.
Kelley J. Kill '79 has joined the staff of *The Evening Leader* in St. Marys.
James W. Mahoney, MEd '79, is principal of South Zanesville Elementary School.
Roger G. Rhodes, '79, MA '80, is instructor-acting coordinator of the radio-television department at Ohio University-Zanesville.
Gary B. Roberts '79 is executive secretary for Pike County Children's Services.
David Alan Stephens '79 is conductor of the Springfield Youth Symphony Orchestra.
Kim Elvo Van Oskeul '79 has received her wings as a flight attendant with American Airlines and is based in Chicago.

1980s

Kareo Ardey '80 is a teacher of the learning disabled at Somerset Elementary School in Somerset.
Woody F. Baines '80 is working for Proprietary Computer Systems Inc. as a tape librarian and is taking classes at Los Angeles Valley College. She lives in Pacoia, Cal.
Mark Alao Boright '80 is an accountant with Standard Oil Co. and resides in Lima.
Joe Curran '80 is the legislative assistant to State Sen. Thomas A. VanMeter.
Melissa Dible '80 is teaching in Zanesville.
Ann Lynn Dunn '80 is teaching in the Logan City Schools.
Joyce M. Durnwald '80 is an introductory nursing instructor at Mansfield General Hospital School of Nursing.
Thomas M. Gamble '80 is a district scout executive for the Mountaineer Area Council of the Boy Scouts of America of Fairmount, W. Va.

Nancy L. Hall '80 is a speech and hearing therapist employed by the Logan-Hocking School Board.
Leah Ann Hoadzel '80 is employed at Good Samaritan Medical Center in Zanesville.
Franklin P. Hilliard '80 is instructor of instrumental music at Belmont High School in the Dayton City School District.
Mathia Holman '80 is a staff nurse at Bethesda Hospital in Zanesville.
Brian Horst '80 is a severe behavioral disorders teacher at Sycamore School in Sandusky.
Robert L. Kaschoer, MEd '79, MSA '80, is the executive director of the Northeast Community Building in Canton.
Nancy Ellis Koch '80 is working for Touche Ross & Co. in Akron and has passed her certified public accounting test in Ohio.
Stephen A. Lang '80 is project engineer at BF Goodrich Co. in Akron.
Sandra K. Lewis '80 is director of the Department of Physical Medicine at Lancaster-Fairfield County Hospital.
Shawn M. Mater '80 was commissioned a second lieutenant in the United States Army.
Kathy J. Mesterman '80 is a foreign language instructor at Fairview High School in Sherwood.
Timothy C. Mickelson, PhD '80, is product manager with Marquette Electronic Inc. in Milwaukee, Wis.
Michael Miller '80, received two Emmy Awards for his excellent work as a videographer and for videotape editing from the National Academy of Television Arts and Sciences.
Gregory P. Pious '80 is a sales representative for Capital Supply Corp. in Cleveland.
Susan Plunk '80 is teaching the learning disabled at Somerset Elementary School in Somerset.
Robert L. Reed '80 is working for Westinghouse under a graduate student program that provides him with the experience of various Westinghouse locations. Reed is in Jacksonville, Fla., and has accepted a full-time position with the corporation.
Stephen R. Smith '80 is working for Stroh & Co. as a representative for the Stroh Brewery Co.
Paul A. Sturgeon '80 is a contract price analyst for the U.S. Air Force in Cincinnati.
Leon Whaley '80 is teaching grade 6 at Sarahville Elementary in Caldwell.
Jack J. Wharton '80 is a plant controller at the Campbell Soup Co. plant in Dayton.
Mark Wildman '80 is employed as director of student activities and housing at Hocking Technical College in Nelsonville.
Marilyn M. Wilburn '80 is the congressional editor for the *Columbus Evening Letter* in Washington, D.C.
Randy S. Wood '80 is pastor of Central Baptist Church in Williamsburg.

Deaths

Z. Gibson Taylor '11 in November after a brief illness in St. Petersburg, Fla. He is survived by his wife, a daughter, Mildred H. Taylor Rowland '48, a son-in-law, Roger L. Rowland '48, a son, seven grandchildren and one great-grandson.
Frank A. White '11 on October 15 in Laguna Hills, Calif., after a long illness. Mr. White was president of White-Wilson-Merritt Inc. insurance agency in Beachwood, Ohio, from 1931 until his retirement in 1971. He was a former trustee and board member of Camp Ho Mite, a summer camp for diabetic children, and of the Insurance Board of Greater Cleveland. Surviving are his wife, a daughter, three sons, eight grandchildren and two great-grandchildren.
Margaret B. Sackinck '17 on October 22 at the Hutton Nursing Center, Salem. Mrs. Sackinck was a teacher for 30 years in the Youngstown and Liberty school districts, retiring in 1964. She was a member of the Ohio University Women's Club. She leaves two sons and four grandchildren.
Harold W. Crati '20 on November 11 in Chillicothe.
Charles E. Barker High '20 on November 17 at Naples (Fla.) Community Hospital. Mrs. High was a retired English teacher who taught school in Ohio, California and Colorado. During World Service she included two years.
Mary Reichelderfer Werkan '21 at the Delaware Park Care Center following an extended illness. Mrs. Werkan married in 1941 and had four sons. Xavier College and at Chicago, Parker and Carl Schulz high schools in Chicago. She was known for her philanthropic activities, which included major funding for the establishment of the West Mass Senior Citizen Center in Delaware. She was a member of Pi Lambda Theta, Sigma Delta Epsilon, and the American Association of University Women.
John E. Kircher '23 on September 3. He resided in Columbus and is survived by his wife, Mrs. William W. Walsh '23 in August in New Orleans, La. Mr. Walsh worked in personnel departments for General Motors and the federal government and in 1941 became director of personnel for the City of Dallas. He left public service to take a position as personnel manager for Texas Instruments and retired from that position in 1964. Survivors include his wife, two sons and 10 grandchildren.
Jeanette Adams Chase '24 on November 24 in Portsmouth Beach, Fla.
Richard V. Daggett '24 on November 19 in Whispering Pines, N.C.
Dorothy Slutz Garrison '24 on November 22 in Blanchester. Mrs. Garrison founded the Blanchester Public Library and was active in civic and social organizations. She was a member of Phi Phi sorority. Survivors include her husband and a daughter.



Please print your new address below:

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AND, attach the green address label from your Ohio University TODAY below, so that your records can be updated.

Clip this entire form and mail to:

Alumni Records and Research
P.O. Box 869
Athens, Ohio 45701

Esther Kenocy Staats '24, MA '48, on October 20 at Oxford View Nursing Home, Oxford. Mrs. Staats was a teacher and speech therapist in Athens county and city schools. She was active in educational organizations and served as an officer in the Ohio Congress of Parents and Teachers, the Athens Education Association, the Ohio Education Association Legislative Committee, the American Association of University Women, the Ohio Governor's Commission for Women and the American Speech and Hearing Association. Survivors include her husband, Loren C. Staats Sr. '26, MA '31, Emeritus '66, a son, two grandchildren and a brother.

Vida L. Williams Whitcher '24 on December 15 in Jackson, Mich.

Lawrence G. Worstell Jr. '25 of Athens on January 14 in Riverside Methodist Hospital, Columbus. Mr. Worstell graduated from the Ohio State University College of Law in 1929 and practiced law in Cleveland and Athens. He was a member of the Athens County and Ohio State Bar associations and was admitted to practice before the U.S. Supreme Court. Mr. Worstell was active in the Athens Rotary Club, serving as president, vice president and treasurer and was governor of Rotary International District 669 from 1964-65 and 1965-66. The Athens Rotary-Lawrence Worstell Scholarship Fund at Ohio University was named in his honor. He was a member of Beta Theta Pi, the Green and White Club and the Southeast Lung Association. He is survived by his wife, Helen W. Worstell, Emerita '78.

Charlotte C. Exley '26 on October 25. She lived in Wheeling, W. Va.

Ralph P. Deniog '27 on November 10 at his home in Richmond, Ind. Mr. Deniog worked eight years for the Ohio Inspection Bureau in Columbus and Cleveland and 35 years for the Insurance Company of North America in Chicago and Richmond as a technical superintendent. He retired in 1970. Mr. Deniog played cornet in the first Ohio University marching band in 1923. He is survived by his wife, Margaret Peters Deniog '25, a son and a brother, Walter M. Deniog '25.

Eleanor Swaney Sayre '27 on December 7 in Chester, W. Va. She is survived by her husband.

Harold E. Kurtz '28 on December 29 at Union Hospital in New Philadelphia following a brief illness. A former teacher and principal in the Stone Creek School System, he retired in 1965 from the Grayhound School System. He also organized the first Boy Scout Troop in New Philadelphia. He is survived by his wife, two sons and three grandchildren.

Naomi M. Swigart Soka '28 on November 12 in Mansfield.

James H. Burkholder '29 on January 3 from a heart attack in Parma. While at Ohio University he was captain of the 1929 basketball team, champions of the 1929 Buckeye Conference. He is survived by his wife, Martha Steward Burkholder '31, and a daughter.

Kenneth C. Coulter '30 on October 29 in Franklin Hospital, Shippensburg, Pa. Dr. Coulter was superintendent of schools in Greenwich, Conn., for 20 years. He was honored by the National Joint Council of Economics Education for his efforts in that field and is listed in *Who's Who in American Education*. Surviving are his wife, Dorcas Herron Coulter '27x, a son, two sisters, including Evelyn Coulter Luchs '27, a brother and two grandchildren.

Josie Enid Weaver Fulton '31 on October 2 from a heart condition in Columbus. She taught grade school for eight years in Hocking County. Mrs. Fulton retired from the Niffert Electric Products Co. in Columbus and Delaware after 25 years of service. She is survived by her husband, Earl R. Fulton '23, a daughter, a son, three grandchildren and one great-grandson.

Keoneth C. Ray '31 on January 23 at Bethesda Hospital in Zanesville following a long illness. Mr. Ray represented Morgan County in the state legislature for two terms beginning in 1929. He was a former teacher in Morgan and Muskingum counties, superintendent of Zanesville and Athens County schools and director of education for the State of Ohio during the first term of Gov. James Rhodes. Mr. Ray served as chief of the federal education division of the Foreign Operations Administration in Washington, D.C., and was director of the International Cooperation Administration during the Eisenhower years. Surviving are his wife, a daughter, a son, a sister and four grandchildren.

Herbert A. Mills '34 on September 5 in Ft. Myers, Fla.

Martha Smith Greeolee '35 on December 23 at Lakeside Hospital, Cleveland. Mrs. Greenlee was a substitute teacher in Shaker Heights junior and senior high schools for about 10 years after moving to Cleveland in 1938. She also taught at a junior high school in Uhrichsville. She was a member of Alpha Pi chapter of Zeta Tau Alpha sorority. Surviving are her husband, two daughters, three grandchildren and two sisters.

Anthony J. Race '35 on September 4 in Bethesda, Md.

William Clark '38 on September 25 in Port Huron, Mich.

Charles B. McKellogg '40 on August 24 of cancer in Shelby. He is survived by his wife.

John G. O'Briee '41 on December 22 in Upper Montclair, N.J.

D. Ben James '43 on December 25 in Austin, Texas, where he had moved following his retirement from the *Akron-Beacon Journal* in 1975. A former executive of the *Akron-Beacon Journal*, he joined the paper in 1948 as a reporter and over the years held a number of positions, including state editor and assistant managing editor. During World War II, he was a journalistic observer on U.S. Air Force bombing missions. Mr. James was a past president and member of Sigma Delta Chi. He leaves his wife, Bette Burke James '43x, two sons, three daughters and four grandchildren. Gertrude E. Sorcea '44 on September 27 in Long Island, N.Y.

Margaret J. Webster Wilhelm '45 on October 20 at Holy Cross Hospital, Ft. Lauderdale, Fla., after a long illness. She was an employee of Holy Cross Hospital and a member of Alpha Gamma Delta sorority. She is survived by her husband, two daughters, her mother and a sister.

John Stephen Galasky '46 on September 15 in West Haven, Conn.

Fred A. Tate '47 on November 19 of a heart attack while on business in Washington, D.C. Dr. Tate was associate director for planning and development of the American Chemical Society's Chemical Abstracts Service. He was a member of the Ohio University faculty from 1951-53 and was associated with General Motors Research Laboratories before he joined Chemical Abstracts. He received his MA and PhD in organic chemistry from Harvard University. He was a member of the American Chemical Society, the American Association for the Advancement of Science, the New York Academy of Science and Phi Beta Kappa. He is survived by his wife, Phyllis Cass Tate '44, a son and a daughter. As a tribute to Dr. Tate, his family asked that in lieu of flowers contributions be made to the Chemistry Department Library. To date, more than \$2,000 has been contributed towards the purchase of books that will be a memorial to the active researcher and teacher.

John Neil Patterson '48 on December 24 of a heart attack. Mr. Patterson was vice president of engineering for Woodruff Inc. Prior to joining Woodruff in 1957, he was a civil engineer for the state in Ashtabula County. He resided in Newbury. Mr. Patterson was a member of the Ohio Society of Professional Engineers, Cleveland Municipal Engineers, National Society of Professional Engineers and American Society of Civil Engineers. Surviving are his wife, a daughter, a son, a granddaughter and a brother.

Gilbert William Weekley '48 on January 28 at his home in Caldwell. He was a retired school teacher. Mr. Weekley taught more than 40 years and was principal of Caldwell High School for 27 years. He is survived by his wife, four daughters, 14 grandchildren and three great-grandchildren.

Robert G. "Bud" Rose '53 on August 13 in Dayton. He was a partner in Polar Inc. and was active in tennis affairs in the Dayton area.

George B. Mitchell '55 on October 5 in Canton.

Andrew William Perine Jr. '56 on December 4 of burns suffered in a fire at the Stouffer Inn in New York. A warehouse manager for the Nestles Co. in Zanesville, Mr. Perine was attending a conference at the inn as a Nestles representative. After serving in the U.S. Army, he worked for General Mills for 11 years and for J. C. Penney's for five. He was named Jaycee Man of the Year when he lived in Minneapolis, Minn. Surviving are his wife, Carol Muller Perine '58, his parents, a son and a daughter.

Vera Estee Virdean '56 on October 9 in Santa Anna, Calif. She is survived by her husband.

John M. Nestic '58 on December 4 in Wickliffe.

Dudley O. Wills '58 on November 10 of a heart attack in Richwood. Mr. Wills taught industrial arts in North Union School District for 22 years and owned Wills Construction Co. He also taught 12 years at Marion Correctional Institution. He was a veteran of the Korean conflict. Survivors include his wife, his mother, two sons, two daughters, six brothers and three grandchildren.

Dean J. Woinicz '68 on September 5 in Marion of injuries sustained in an automobile accident. Mr. Woinicz was a foreman at the Quaker Oats Co. in Marion. He had served with the U.S. Army in Vietnam and Germany. He is survived by his wife, a son, his parents and a sister.

Thomas K. Crist '72 on September 30 as a result of a motorcycle accident. He lived in Columbus.

Clarence Murice Ogden '72, MA '74, on December 12 in Columbus.

Paul C. Walker '72 on November 13 following an automobile accident. Mr. Walker was a partner in BRW's Restaurant in Lyndhurst. He is survived by his wife, his parents, three sisters, a brother and his grandparents.

David G. Gwilym '76 on December 4 from injuries received in an automobile accident in Chillicothe. Mr. Gwilym was a law enforcement teacher at Pickaway-Ross Vocational Center. A Navy veteran of the Vietnam conflict, he was a former investigator in the Athens County Prosecutor's Office and had served as Athens County sheriff during an interim period. Survivors include his wife and a sister.

Items for Ohio University Today's "People" section and address changes should be sent to Susan Kerkian, director of alumni records, P.O. Box 869, Athens, Ohio 45701.

Items for "Of Interest to Alumni" and requests for further information on alumni events and programs should be sent to Barry Adams, director of alumni relations, at the above address.

Reflect Your Spirit in the Bobcat Tradition

A tradition to share with the little Bobcat in your life



Infant Attire

Athletic cut shorts in Kelly green with white imprint "I'm behind the Bobcats" on back panel. 50% polyester and 50% cotton knit. Sizes 6/9 mos. and 12, 18 mos. Price \$3.75. Crew neck shirt, with gripper snapped shoulder and short band sleeves. White with green imprint Ohio University with Bobcat head on front. 50% polyester and 50% cotton knit. Sizes 6/9 mos. and 12, 18 mos. Price \$4.25.

Toddler Attire

Athletic sport pant with elastic waistband, white lettering on left leg: Ohio University. Kelly green. 50% polyester and 50% cotton knit. Sizes 2,3,4. Price: \$4.95. Raglan sleeve jersey with ribbed trim crew neck. White with Kelly green long sleeves, ribbed cuffs. Lettering Ohio University with Bobcat head on front in green. 50% polyester and 50% cotton knit. Sizes 2,3,4. Price: \$4.50.

Pre-Teen Attire

T-shirt. Kelly green or powder blue with block lettering OHIO UNIVERSITY in white. 100% cotton. Sizes S(6-8), M(10-12), L(14-16). Price: \$4.50.

Children's Rocker

18" W, 21" D, 29" H overall. Hardwood rocker with University seal, black lacquer finish with maple stained arms. Price includes shipping via UPS — \$55.

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Ohio University TODAY



Alumni College '81

If satisfied customers are the measure of success, Alumni College is a smash.

In fact, the encomiums heaped on 1980's College were a bit overwhelming. Adjectives like *marvelous*, *stimulating*, *wonderful*, *magnificent*, *amazing* and *enjoyable* were heard again and again.

If you think we are making this up, here's a sampling of comments from satisfied consumers: "Alumni College works; it's good advertising for the University. The classes are stimulating and the program is a grand mix. It was absolutely Utopian. . .," John Myers '50.

"Exceeded our expectations — certainly stimulating. I'll come again. . .," Barbara Brown Leighton '43.

"I appreciated the different perspectives; all the programs were of equally high quality. . .," Sally Meeting '75.

"It makes you think and you leave wanting more. We're looking forward to next year.

The resources are so deep that after three years we're still seeing the cream of the faculty crop," Daryl Kenning '62.

"I'd been turned off by the 1960s on campus. Now we're feeling a part of Ohio University again. It's hard to offer suggestions for improvement," James McCoy '52.

It's also hard for Alumni Director Barry Adams and his staff to remain their modest selves in the face of such praise. Of course such "stroking" spurs them on to new heights, and that's what 1981's Alumni College participants can look forward to.

This year, you'll learn about "The Face and Shape of Modern Sculpture" from sculptor and art professor Jack Baldwin, whose own bold works have been exhibited widely.

Then Oxford graduate and chemistry professor Peter Griffiths will let you in on what's new in coal research. The University's prime grant-getter, Griffiths is also the youngest faculty member ever named a Distinguished Professor.

Lest all the sitting in classes atrophy the limbs, zoologist Fritz Hagerman, adviser to Olympic rowing teams and marathon runner, will instruct you on "Run for Your Life; Understanding Exercise Physiology."

Resting from the run, you'll listen to Larry Larson, a University Professor, blend the humanities and the sciences in "A Humanist Approach to Biology."

Last year's enrollees were polled on their 1980 presidential preference and opted for Ronald Reagan. Perspicacious bunch, our alumni. They asked for a follow-up, so Alumni College '81 offers political scientist Patricia Richard's "Election 1981: A Turn to the Right?"

Remember Pearl Harbor? D-Day? VE-Day? Dean of Communications John Wilhelm does and will recount his front-line adventures as a World War II correspondent in "Eyewitness to History."

One of the popular 1980 sessions had pianist Richard Syracuse wending his way through music from the Baroque to the Modern, speaking just enough, playing never enough. This year, he's back for "More Music from Richard Syracuse and His Friends."

What else? An early bird arts and crafts session in addition to the regular a/c program; an Oriental cooking class; a photography session; instruction in golf and tennis; air-conditioned rooms; good food; good fellowship.

And for children 6-12, there's a specially tailored program guaranteed not to be a repeat of last year's.

Adams is not only an excellent organizer, he's also downright thrifty. Battling inflation with rare skill, he and the staff have somehow kept the cost to \$115 for adults, \$90 for children for the July 16-19 College.

Don't lose the chance to exercise some adjectives. Enrollment has to be limited simply to provide the array of services and nice touches that ward off Institutional Impersonality. To reserve your space, send a \$35 per person deposit by July 8 to the Ohio University Alumni Association, Alumni College '81, P.O. Box 869, Athens 45701.



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